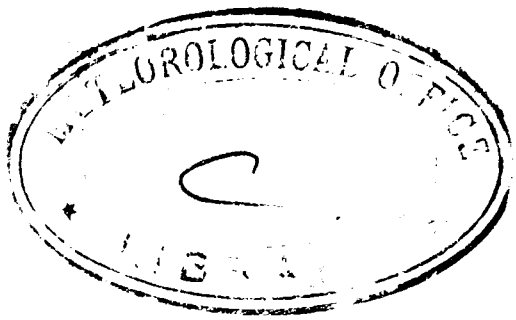
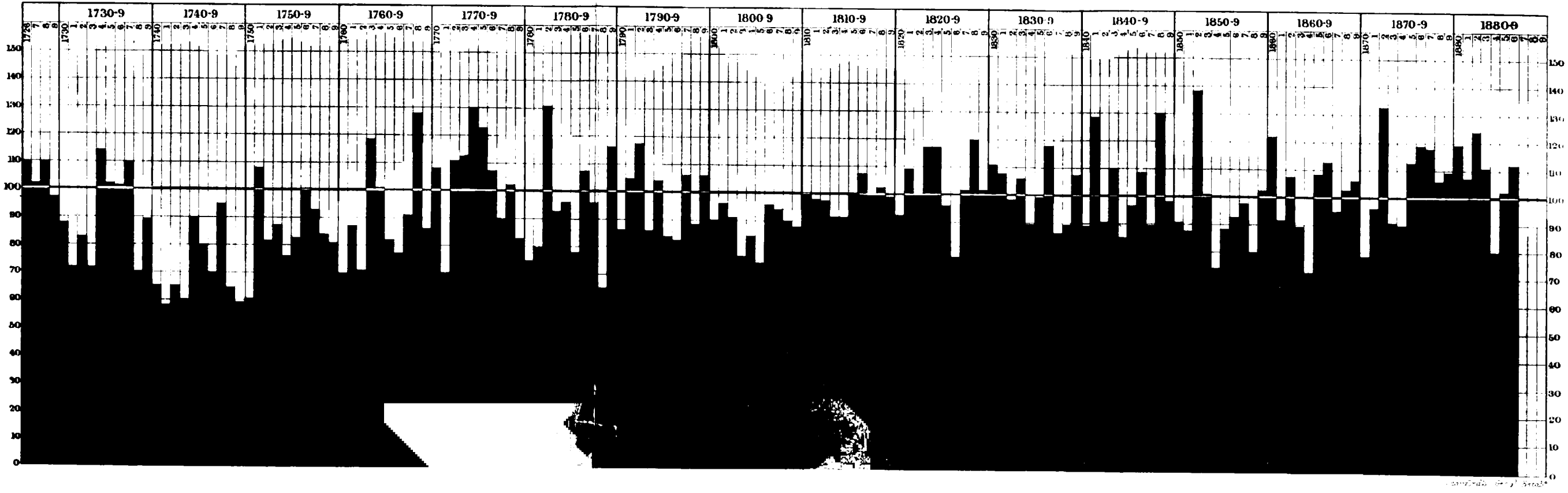


BRITISH RAINFALL,

1886.

LONDON :
G. SHIELD, PRINTER, SLOANE SQUARE, CHELSEA, S.W.
—
1887.

FLUCTUATION OF ANNUAL RAINFALL FROM A.D. 1726 TO A.D. 1886.



BRITISH RAINFALL, 1886.

ON

THE DISTRIBUTION OF RAIN

OVER THE

BRITISH ISLES,

DURING THE YEAR

1886,

AS OBSERVED AT NEARLY 2500 STATIONS IN GREAT BRITAIN AND IRELAND,

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK.

COMPILED BY

G. J. SYMONS, F.R.S.,

Secretary Royal Meteorological Society; Membre du Conseil Société Météorologique de France Member Scottish Meteorological Society; Korrespondirendes Mitgleid Deutsche Meteorologische Gesellschaft; Honorary Member Meteoroloyical Society of Australasia; Member of Council Royal Botanic Soci ety; Registrar and Member of Council Sanitary Institute; Fellow Royal Colonial Institute; Membre correspondant étranger Soc. Royale de Médecine Publique de Belgique; Hon. Mem. Hertfordshire Nat. Hist. Soc., Essex Field Club; Northamptonshire Nat. Hist. Soc., &c. &c. &c.

LONDON:

EDWARD STANFORD, CHARING CROSS, S.W.

SIMPKIN, MARSHALL & Co., STATIONER'S HALL COURT.

1887.

CONTENTS OF BRITISH RAINFALL 1886.

	Page
Preface	7
Report—General—Rules for Observers—Rain Gauges Overflowing—Days with Rain—Inspection of Rainfall Stations—Old Observations—Instruments—Mean Monthly Rainfall — The Nunes Bequest—Finance	8
On the Evaporation from a Water Surface, by G. J. Symons F.R.S.	14
New Rain Gauges in the Lake District	24
Recent Annual Rainfall compared with that of the Previous 160 Years	27
Rotherham Experimental Gauges	29
Rainfall at the Royal Observatory, Greenwich	32
The Staff of Observers	33
Obituary	46

RAINFALL AND METEOROLOGY OF 1886.

On the Meteorology of 1886, with Notes on some of the Principal Phenomena	[3]
Observers' Notes on the Months of 1886	[54]
Observers' Notes on the Year 1886	[93]
Heavy Rains in Short Periods in 1886	[117]
Heavy Falls in 24 Hours during 1886	[119]
Droughts in 1886	[133]
Monthly Rainfall at 233 Stations in 1886	[137]
Monthly Fall in 1886	[144]
Relation of the Total Rainfall in 1886 to the Average	[147]
Extremes of Rainfall in 1886	[153]

GENERAL TABLES OF TOTAL RAINFALL.

Explanation of the Arrangement of General Tables	[156]
County Index to General Tables	[157]

ILLUSTRATIONS.

Fluctuation of Annual Rainfall from A.D. 1726 to A.D. 1886	*Frontispiece*
Hook Gauge for Measuring Evaporation	*p.* 16
Diagram of Monthly Total Evaporation at Camden Square	*face p.* 20
Map of the Rainfall of July 25th, 1886	,, *p.* [124]
Map of the Depth of Rain and Snow Dec. 26th, 1886	,, *p.* [128]
Maps of Monthly Rainfall in 1886	*between pp.* [144]—[145]
Map of Annual Rainfall in 1886	*face p.* [148]

ERRATA IN BRITISH RAINFALL, 1885.

Plate facing p. [150] 1870–89 should be 1870–79.

Page [186] Appleby, total should be 25·40 not 24·40.

BRITISH RAINFALL, 1886.

I HAVE often felt, when writing a few lines of preface, and explaining why the volume does not appear earlier, that it was, perhaps, partly my own fault; that by working harder, or for longer hours, it might have appeared a week or two sooner. But, though later than ever, this year I have no such feeling; I know that the delay is due chiefly to the exceptional character of many of the phenomena of the year, and partly to some observers not having sufficient health, or courage, or interest in their records to induce them to face the snowstorms of March 1st and of December 26th, and to obey Rule XV., as they should have done. I have no wish to dilate on the extra labour and thought which this entailed; the great majority of the observers were both careful and successful, and it would ill become me to speak otherwise than with thankfulness of the work of those who have so long and so efficiently helped me.

Let us, like our friends the telegraph engineers, hope that it may be many years before the disorganization produced by that Christmas snowstorm is repeated.

G. J. SYMONS.

62, CAMDEN SQUARE, N.W.
July 13th, 1887.

REPORT.

THIS will be shorter than usual this year, as some of the matters dealt with last year have in the present volume formed the subject of separate sections.

Checking Returns.—This has been continued exactly as explained last year, and therefore need not be again described.

Rules for Observers.—The demand for the pamphlet entitled, "*Arrangements for the Systematic Observation and Record of the Rainfall of the British Isles*" (which is sent gratis and post free to every applicant) has not been so large as I wish—the necessity for some persons obtaining and reading it is well illustrated by the next paragraph.

Rain Gauges overflowing.—Five records have to be omitted this year, because not only was the capacity of the gauges too small, but the observers, though they must have known that the rain was coming down in torrents, did not go to look at them until the next morning! So much for their attention to Rule XVI.

Days with Rain.—The returns seem to be improving rather than otherwise, but there are still many gross differences. Some observers persist in recording falls of less than ·01 in.; others, on the contrary, go to their gauges only when *they think* that there has been rain—the result of which is that they allow many cases of ·01 and ·02 to be measured along with the next heavy fall. As a rule, the number of days with rain set against stations to which a D is prefixed, may be regarded as correct, or nearly so.

Inspection of Rainfall Stations.—It is greatly to be regretted that, owing to the want of more money, both this and the work next to be mentioned have been much neglected. I have done what I could, and especially in the Lake district have tested a good many gauges, but our organization will never be what I should like to see it, until we can have an inspector constantly on the move during six months of each year.

Old Observations.—Very little has been done in the way of hunting up old observations, yet if we are ever to get conclusive evidence as to secular change, if we are ever to know whether there

does exist such a thing as a rainfall cycle, it can only be by collecting and discussing all the trustworthy data which exist. The collection which I have formed is by far the largest and best, but it ought to be completed, and for that purpose the services of a copyist at the British Museum and other libraries are essential. These I cannot at present command.

Instruments.—At last I have obtained that for which I have asked for many years—a self-recording rain gauge not costing more than £10. One is now at work here made by MM. Richard Frères, of Paris, and if it continue to work as well as it has done hitherto, the required conditions will be fulfilled, and I shall, I hope, see many of them distributed over the country. Two of the larger pattern, by the same firm, have recently been erected, one by the Local Board of West Bromwich and one by that of Hornsey. I have heard of two other patterns of self-recording gauge, and intend, in the next volume, to give engravings and descriptions supplementary to those in *British Rainfall*, 1879.

Evaporation.—See separate section on page 14.

Mean Monthly Rainfall.—Nothing more has been done with these tables, and as the Meteorological Council has resolved to print no more rain tables for another five or six years, I suppose we must regard the subject of seasonal rainfall as indefinitely shelved.

Lake Gauges.—See separate section on page 24.

Finance.—Some contributors having expressed disappointment at their contributions (remitted after the annual list was made up) being acknowledged in the *Meteorological Magazine* instead of here, I have this year applied to all whose subscriptions had not been sent, so as to make the list on p. 11 as nearly perfect as possible. It is, therefore, rather longer than usual, but as far as I am able to ascertain, it would, but for this special action, have been considerably less than in previous years. It is a sad but true fact, that Jubilee year finds many persons shorter of money than usual, and I am by no means sure that the rainfall income will meet its expenditure. The two items of printing and salaries (excluding myself entirely) will absorb as nearly as possible all the subscriptions here acknowledged. The other charges, such as postages, maintenance of gauges, &c., will have to be met by donations under £1 and by the sale of copies of this volume. This is rather hard, both on rainfall work and, finally, on myself.

The Nunes' Bequest.—I do not think that it is well that the

good done with the legacy of £100 received from Miss Nunes should be allowed to slip entirely into the general tables, and therefore out of memory; and as the gauges have now been at work nearly four years (three perfect and parts of two others), I have drawn up an abstract of the results. When it is remembered that this is only part of what was done with the legacy, it will, I hope, be admitted that the money was not altogether badly appropriated.

Stations provided with Rain Gauges out of the Nunes' Bequest.

Div.	County.	Station.	Total Rainfall 1884.	1885	1886
			in.	in.	in.
II.	Kent	Lower Walmer	25·63	24·40	28·79
,,	,,	Maidstone, Bicknor	22·65	25·51	26 90
,,	,,	Sevenoaks, Wrotham	25·36	27·20	26·98
,,	Hants	Emsworth, Redlands	21·91	29 35	31·91
III.	Hunts	Alconbury	17·20	23·31	27·69
V.	Devon	Torrington, Langtree	...	45·79	47·63
,,	,,	Brandis Corner, Cookbury	40·31 T	Obs. left, Armadal	g. sent to e Castle.
,,	,,	Bideford, Hartland Abbey	39·03	41·10	43·91
,,	Somerset	Wells, Westbury S. Mendip	30·81	32·36	37·76
VI.	Gloucester	Andoversford, Hampen	26·13	32·18	Obs. left
,,	Salop	Bridgenorth, Burwarton	31·34	38·18	44·20
,,	,,	,, Brown Clee Hill	...	42·32	46·07
VII.	Nottingham	Newark, Kirkgate	16·99	23·04	26·66
VIII.	Cheshire	Tarporley, Oulton Park	Observer	left and	g. lost.
IX.	York, W.R.	Harrogate, West End Park	29·11	30·73	32·90
,,	,, E.R.	Market Weighton, Houghton.	...	27·45	28·83
,,	,, N.R.	Melmerby, Baldersby	26·31	23·71	29·06
,,	,, ,,	Northallerton, Ingleby Green.	26·95	33·54	39·64
X.	Cumberland	Hesket Newmarket	46·69	37·64	41·13
XI.	Glamorgan	Cymmer	Observer some one	handed else. No	g. over to rec. recd.
,,	Radnor	Llanstephan	35·34	35·78	43·96
,,	Denbigh	Cerrig-y-druidon	..	44·66	57·20
XV.	Argyll	Isle of Coll, The Manse	55·07	42·76	40·64
XVII.	Banff	Banff, Cullen Ho.	24·70	27·25	28·95
XVIII.	Inverness, W.	Skye, Armadale Castle	...	71·80	63·65
,,	,,	N. Uist, Lochmaddy	51·98	48·01	46·86
XIX.	Shetland	Lerwick, Montfield	51·10	37·77	42·24
,,	,,	Foula Island	No tidings	of g. or	Observer
XX.	Kerry	Dingle	54·14	54·79	61·66
,,	Clare	Six Mile Bridge, Kilkishen	37·88	33·34	40·16
XXII.	Mayo	Castlebar	Im	p. g. sent	to Tullag hobegly.
,,	Leitrim	Lawderdale	45·45	36·61	44·89
XXIII.	Antrim	Belfast, Glenbank	49·30	37·07	39·00
,,	Donegal	Bloody Foreland, Tullaghobegly	...	...	41·54

LIST OF ALL SUMS OF £1 AND UPWARDS RECEIVED IN PAYMENT FOR BOOKS, DIAGRAMS, &c., OR AS CONTRIBUTIONS TO THE GENERAL EXPENSES OF RAINFALL INVESTIGATIONS IN 1887.

	£	s.	d.
Abbotts, R. W., Esq.	3	15	0
Abercromby, Hon. Ralph	1	0	0
Accrington Gas and Water Co.	1	1	0
Ainsworth, Col.	1	1	0
Ames, E. L., Esq.	2	10	0
,, H. St. V., Esq.	1	1	0
Anderson, W. H., junr., Esq.	1	0	0
Appach, R., Esq.	1	1	0
Arkwright, J. H., Esq.	1	1	0
Armstrong, Sir W. G., F.R.S.	1	0	0
Ashby, Morris, Esq.	1	0	0
Assheton, R., Esq.	1	5	0
Backhouse, T. W., Esq.	4	10	0
Baines, L. T., Esq.	1	1	0
Baker, Miss F.	1	1	0
,, W. C., Esq.	1	0	0
Baldry, J. D., Esq. C.E.	1	1	0
Balkwill, G. junr., Esq.	1	1	0
Balme, E. B. W., Esq.	2	17	0
Barber, J. T., Esq.	7	0	0
Barne, Col. St. John	1	0	0
Barrington, R. M., Esq.	1	0	0
Bartholomew, W. H. Esq., C.E.	1	6	0
Bateman, J. F. Esq., F.R.S.	2	2	0
Baxendell, J., Esq.	1	0	0
Bayard, F. C., Esq.	2	2	0
Bayning, The Lady	1	1	0
Beck, Major Alcock	2	2	0
Bell, Major	2	2	0
Bentley, G., Esq.	1	1	0
Benyon, R., Esq.	5	0	0
Berners, C. H., Esq.	1	1	0
Berridge, W., Esq.	1	1	0
Best, Col.	1	5	0
Bicknell, P., Esq.	3	0	0
Biddell, G. A., Esq., C.E.	1	5	0
Birkbeck, W., Esq.	1	0	0
Blackburn, Prof.	1	0	0
Blackmore, R. D., Esq.	1	1	0
Blake, W., Esq.	2	5	0
Blamire, Rev. W. H.	1	5	0
Blomefield, Rev. L.	1	10	0
Boscawen, Capt. Griffith	1	2	0
Boughton, Miss F. H. R	1	1	0
Bowles, Rev. F. A.	1	5	0
Boyd, The Ven. Archdeacon	1	11	0
Bradshaw, Admiral	1	10	0
Bramwell, Sir F. J., C.E., F.R.S.	2	2	0
Bridport, Rt. Hon. Viscount	3	3	0
Brighton Corporation	1	10	0
Bristol Water Works Co.	1	1	0
Brook, C. L., Esq.	2	2	0
Brooke, Miss E.	1	14	6
Brooks, Sir W. Cunliffe, Bt., M.P.	1	1	0
Brown, Rev. D.	1	0	0
,, F. F., Esq.	1	1	0
,, Miss	1	0	0
Brunner, Mond & Co., Messrs.	1	1	0
Bryan, Mr. J.	1	1	0
Buchanan, Lt.-Col.	1	17	8
,, G., Esq., C.E.	1	1	0
Burder, G. F., Esq., M.D.	1	5	0
Burra, J. S. Esq.	2	5	0
Bushell, R., Esq.	1	0	0
Caird, J. A. H., Esq.	1	0	0
Cameron, A., Esq.	1	0	0
Campbell, C. D. H., Esq.	1	0	0
,, Colin G., Esq.	1	1	0
Capron, J. R., Esq.	1	0	0
Carmichael, P., Esq.	1	5	6
Carr, Rev. E. D.	1	0	0
Cattley, W. E., Esq.	1	0	0
Chambers, B. E. C., Esq.	1	1	0
Chancellor, F., Esq.	1	1	0
Chapman, E., Esq.	3	5	0
Chrimes, R., Esq.	10	0	0
Christopherson, Rev. A.	1	0	0
Church, H. P., Esq.	1	1	0
Clay, A., Esq.	2	0	0
Clegram, W. B., Esq., C.E.	2	0	0
Clermont, Rt. Hon. Lord	1	0	0
Coles, Dr.	1	0	0
Compton, T., Esq., M.D.	1	0	0
Coode, E., Esq.	1	4	0
,, W., Esq.	1	7	3
Cooke, Rev. R. B.	1	10	0
Coppin, J. Esq.	1	0	0
Corbishley, Rev. J.	1	0	0
Corden, G., Esq.	1	1	0
Courtald, S., Esq.	1	1	0
Courtown, Rt. Hon. Earl of	1	0	0
Cowper, The Rt. Hon. Earl	1	1	0
Crossley, L. J., Esq.	1	10	0
,, R., Esq.	1	0	0
Crowley, F., Esq.	1	10	0
,, P., Esq.	1	15	0
Cruikshank, Dr.	1	0	0
Darsie, J. R., Esq.	1	0	0
Davis, T. H., Esq.	1	5	0
Dees, R. R., Esq.	1	0	0
De Rance, C. E. Esq.	1	10	0
Devas, Mrs.	1	0	0
Dines, G., Esq. (the late)	2	2	0
,, W. H., Esq.	1	0	0
Dixon, G., Esq.	1	5	0
Doncaster, D., Esq.	1	1	0
Dudgeon, J., Esq.	1	1	0
Duncan, Jas., Esq.	1	1	0
Du Port, Rev. Canon	1	10	0
Dymond, Miss E. A.	1	11	0
,, E. E., Esq.	5	0	0
Eaton, C. O., Esq.	1	6	0
,, E. M., Esq., C.E.	1	0	0
,, H. S., Esq.	1	0	0

	£	s.	d.
Eden, T., Esq.	1	1	0
Edge, T. L. K., Esq.	1	0	0
Ellis, The Hon. and Rev. W. C.	2	2	0
Erskine, Sir T., Bart.	2	0	0
Evans, Mrs.	1	1	0
Eyre, Rev. W. L. W.	1	11	0
,, F. H. D., Esq.	1	5	3
Farrer, Rev. M. T.	3	0	0
,, Sir T. H., Bt.	3	3	0
Fellows, G., Esq.	1	0	0
Fenwick, T., Esq., C.E.	1	10	0
Field, Rogers, Esq., C.E.	3	14	0
Filliter, E., Esq., C.E.	1	12	0
Fisher, W. Esq.	1	0	0
Fitzgerald, Prof. G. F., F.R.S.	1	0	0
Fleming, T. R., Esq.	1	0	0
Foord, Rev. R. H.	2	2	0
Forde, Colonel	2	5	0
Forsyth, J. N., Esq.	1	0	0
Foster, R., Esq.	2	0	0
,, R. J., Esq.	1	1	0
Fox, Rev. W. H.	2	0	0
Gale, J. M., Esq., C.E.	1	0	0
Gamlen, Miss	1	10	0
Garnett, W., Esq.	5	0	0
Goode, W., Esq.	1	1	0
Gray, W. W., Esq.	1	1	0
Green, Lawrence, Esq.	1	0	0
Greg, A., Esq.	1	0	0
Grey, Right Hon. Earl, K.G.	1	0	0
Griffith, W. D. W., Esq.	1	0	0
Grundy, R. A. Esq.	1	0	0
Gulson, J., Esq.	1	12	0
Hack, T., Esq., C.E.	1	11	0
Hadden, Miss E. B.,	1	0	0
Hall, Col.	1	0	0
Halliday, W., Esq.	1	1	0
Hambly, C. H. B., Esq.	1	1	0
Hamersley, Cecil, Esq.	1	0	0
Hankinson, N. C., Esq.	1	1	0
Harris, C. E., Esq.	1	11	0
,, W. J., Esq.	2	2	0
Harrison, C., Esq.	1	0	0
Hawke, F., Esq.	1	1	0
Hayhurst, Colonel	1	1	0
Haywood, T. B., Esq.	1	1	0
,, Lt.-Col., C.E.	1	1	0
Heberden, Rev. W.	1	0	0
Hedgeland, Rev. Preb.	1	1	0
Helps, A. S., Esq.	1	10	0
Hesketh, R. L., Esq.	1	1	0
Higgins, H., Esq.	1	0	0
Hill, Rev. Canon	2	5	6
Hodgson, Rev. F. G.	1	1	0
Holdsworth, J. S., Esq.	1	5	0
Holland, Rev. C.	1	1	0
Hooper, R. N., Esq.	1	0	0
Horner, Mrs.	1	0	0
Horsley, J. J., Esq.	1	1	0
Howard, W. D., Esq.	11	0	0
Howes, Rev. J. G.	1	5	0
Hubbard, Egerton, Esq., M.P.	1	1	0
Hurst, T. G., Esq.	1	1	0
Hutchings, Rev. R. S.	1	7	0
Hutchinson, A., Esq.	1	10	0
Ingram, Colonel	1	0	0
Jackson, F., Esq.	1	0	0
,, M., Esq.	1	1	0
,, Mrs. R.	1	1	0
Jenkin, S. W., Esq., C.E.	1	0	0
Johnston, Miss	1	3	9
Jordan, R. S., Esq.	1	0	0
Kay, Sir Brooke, Bart.	1	5	0
,, D. J., Esq.	2	0	0
Kettlewell, W. W. Esq.	1	0	0
King, J., junr., Esq.	1	10	0
,, S., Esq.	1	0	0
Knight, Col.	1	0	0
Knightly, Lady	1	0	0
Kynaston, Rev. Dr.	2	0	0
Langton, Miss	1	0	0
Latham, Baldwin, Esq., C.E.	2	9	6
Lawrence, D. Esq.	1	0	0
Lewis, Col.	1	0	0
Littleboy, R. Esq.	1	0	0
Lonsdale, C., Esq.	1	5	0
Lucas, W., Esq.	2	2	0
Macaulay, J. Esq.	1	5	0
Mace, J. Ellis, Esq.	1	15	0
Macfie, R., Esq.	3	3	0
Mackeson, H. B., Esq.	1	5	0
Maddy, T. H., Esq.	1	10	0
Mahony, R. J., Esq.	1	0	0
Mainwaring, C. S., Esq.	1	0	0
Major, R. H., Esq.	1	0	0
Mansergh, J., Esq., C.E.	2	2	0
Markham, C. A., Esq.	1	5	0
Marks, T. T., Esq., C.E.	1	6	0
Marshall, Arthur, Esq.	5	0	0
,, John, Esq.	2	0	0
Marson, J., Esq.	2	2	0
Marten, E. B., Esq., C.E.	1	12	0
,, H. J. Esq., C.E.	1	1	0
Massie, The late R., Esq.	1	5	0
Mathew, Major	3	3	0
Matthews, J., Esq.	1	1	0
Maw, C. T., Esq.	1	1	0
Mawley, E., Esq.	1	1	0
Maxwell, Rev. E.	1	2	3
Meares, J. L. D., Esq.	1	0	0
Mellish, H., Esq.	2	10	0
Melville, A. H. Leslie, Esq.	1	0	0
,, A. S. Leslie, Esq.	1	0	0
Merrifield, J., Esq.	1	2	0
Metcalf, Miss B.	1	1	0
Michael, W. H., Esq., Q.C.	1	0	0
Miles, Rev. C. O.	1	1	0
Milnes, E., Esq.	1	0	0
Mitchell, Col.	1	1	0
,, F. J., Esq.	1	0	0
,, Miss	1	0	0
Moore, Dr. J. W.	1	0	0
Morrison, W., Esq., M.P.	2	0	0
Mostyn, C., Esq.	1	1	0
Mount, Rev. C. B.	1	0	0
Muirhead, H., Esq., M.D.	1	1	0
Musgrave, W., Esq.	1	2	0
Myers, W. H., Esq.	2	0	0
Nash, Mr. W. R.	1	5	0
Neame, E., Esq.	1	0	0

	£	s.	d.
Neumann, H., Esq.	1	5	0
Newman, T. P., Esq.	1	1	0
Newnham, Rev. P. H.	1	1	0
North, A., Esq	1	1	0
Nutter, J., Esq	1	11	0
Ogle, B. S., Esq.	1	10	0
Ormerod, G. W., Esq.	1	0	0
,, Miss E. A.	2	18	0
Osler, A. F., Esq. F.R.S.	2	2	0
Otter, R. H., Esq.	1	1	0
Paget, J., Esq.	1	6	0
Palmer, Alfred, Esq.	1	11	0
Parbury, A. F., Esq.	1	0	0
Parker, Rev. Dr.	1	1	0
Parkin, A., Esq.	1	5	0
Parnell, J., Esq.	2	0	0
Parsons, H., Esq.	1	0	0
Paulin, W. T., Esq.	2	17	3
Peake, R. W., Esq.	1	1	0
Pearson, Col.	1	0	0
,, F. F., Esq.	1	1	0
Pease, A., Esq.	2	0	0
,, Sir J. W. Bt., M.P.	1	1	0
Peckover, Alexander, Esq.	1	6	0
Peek, C. E., Esq.	1	6	0
Pennant, P. P., Esq.	1	0	0
Philipps, Capt. Lloyd	1	1	0
Philpott, O., Esq.	1	0	0
Phipps, P. Esq.	1	12	0
Pleydell, J. C. M., Esq.	1	1	0
Preston, Rev. T. A.	3	0	0
Prince, C. L., Esq.	1	1	0
Rapkin, Messrs	1	0	0
Read, R. Esq., C.E.,	1	0	0
Reade, T. M., Esq. C.E.	1	10	0
Rendlesham, Rt. Hon. Lord	3	0	0
Reynolds, J, Esq.	1	1	0
Ridout, Rev. G.	1	0	0
Ripon, Corporation of	1	1	0
Roberts, I., Esq., F.G.S.	1	10	0
,, J. F., Esq.	1	1	0
Robertson, H., Esq.	2	7	0
Robinson, H. H., Esq.	1	0	0
,, J., Esq.	2	0	0
Robson, J. W., Esq.	1	5	0
Ross, Rev. J. C.	1	8	6
Rylands, T. G., Esq.	1	1	0
Ryves, Rev. G T.	1	0	0
Scott, J. W., Esq.	2	2	0
,, Mrs.	2	2	0
,, Miss	1	5	0
Searle, G. von U., Esq.	1	0	0
Senhouse, H. P., Esq.	1	1	0
Shackleton, J., Esq.	1	1	0
Sharples, G., Esq.	1	0	0
Shelford, W., Esq., C.E.	1	1	0
Shepherd, J. W., Esq.	1	0	0
Sherwin, W., Esq.	1	1	0
Shiffner, Miss	1	0	0
Shuldham, Col.	1	0	0
Sidebottom J., Esq.	2	2	0
Silver, S. W., Esq.	1	1	0
Simpson, John, Esq.	1	11	3
Sing, Joshua, Esq.	1	0	0
Slade, F., Esq., C.E.	1	1	0
Smith, B. W., Esq.	1	1	0
,, Cecil, Esq.	1	0	0
,, Harold, Esq.	2	2	0
,, J. C., Esq.	1	0	0
,, Rt. Hon. W. H., M.P.	3	0	0
Smyth, J., jun., Esq., C.E.	1	10	0
Soames, Rev. C.	1	10	0
Southall, H., Esq.	1	0	0
Southall, John T., Esq.	1	1	0
Sparkes, J., Esq.	1	1	0
Spence, R., Esq.,	1	1	0
Spicer, Miss C.	1	1	0
Stanton, Miss R.	1	0	0
Stevenson, G. W., Esq., C.E.	2	2	0
Stewart, Mark J., Esq., M.P.	1	1	0
,, Rev. W. E.	1	1	0
Stirling, P., Esq.	2	2	0
Stokes, H., Esq.	1	0	0
Story, H., Esq.	1	0	0
Stuart, Col.	1	10	0
Stubs, Peter, Esq.	1	1	0
Sulivan, Admiral Sir B. J.	1	0	0
Swindells, R., Esq, C.E.	1	0	0
Tatton, T. Egerton, Esq.	1	10	0
Taylor, F., Esq.	2	2	0
,, J., Esq., C.E.	1	1	0
Tucker, H., Esq.	1	5	0
Tuckett, F. F., Esq.	1	10	0
Twamley, late C., Esq.	1	0	0
Tyndall, W. H., Esq.	1	1	0
Wainwright, B. C., Esq.	2	13	0
Walker, A. O., Esq.	1	10	0
,, J. D., Esq.	1	0	0
Ward, H., Esq.	1	1	0
Waring, Colonel, M.P.	1	0	0
Watkins, Mr. H.	1	0	0
,, J., Esq.	1	0	0
Watson, Rev. J.	1	10	0
Wells, E., Esq.	1	4	0
,, L. B., Esq., C.E.	1	6	0
Weston, J., Esq.	1	0	0
Whitaker, B. I., Esq.	1	0	0
Willsmith, Mr.	1	0	0
Wigram, J. R., Esq.	1	5	0
Wilkin, F., Esq.	1	12	0
Williams, J. A. B., Esq., C.E.	1	1	0
Wilson, Miss	1	0	0
Wingfield, Rev C. L.	1	0	0
Woodd, Basil, Esq.	1	0	0
,, C. H. L., Esq.	1	0	0
Woodhouse, A. J., Esq.	2	0	0
Woollams, Mrs.	1	10	0
Woollett, G. C., Esq.	1	0	0
Wortham, H., Esq	1	10	0
Wright, Philip, Esq.	1	10	3
Yool, H., Esq.	2	2	0
Young, W. B., Esq.	1	5	0

[Subsequent receipts will be acknowledged monthly in the *Meteorological Magazine*. Cheques should be crossed National Bank, and Post Office Orders drawn on Camden Road, London, N.W.]

ON THE EVAPORATION FROM A WATER SURFACE.

By G. J. Symons, F.R.S.

In several of the older volumes of *British Rainfall*, information upon the above subject will be found. I may especially refer to the volumes for 1867, 1869, and 1870.

After that date the experiments at Strathfield Turgiss were carried on, and I had little to do with the subject until they were finished in 1884.

In January, 1885, the tank, which had served as the basis of comparison at Strathfield Turgiss, was brought to Camden Square. The tank is very large—6 ft. by 6 ft. by 2 ft.—and, therefore, both heavy and awkward to handle. The first thing which I did was to have a hole dug in the grass plot rather larger than the tank, and 1 ft. 9 in. deep. Then I had the tank mounted on planks, so that it was easy to examine every part of it. Then it was nearly filled with water; and, the outside having all been wiped perfectly dry, I satisfied myself that no joint had been started during its removal, and that it was absolutely water-tight. It was then emptied and dropped gently into the hole prepared for it—the said hole being flooded with water, so that it might take a true and even bearing and be free from all strain. The little space between the sides of the tank and of the hole were then filled in with earth and flooded, so as to make them solid, and subsequently turfs were laid close up to the sides of the tank, which is now, therefore, surrounded by earth in a level grass plot, the sides rising about $1\frac{1}{2}$ in. above the blades of the grass.

It is known that the amount evaporated depends largely on the amount of wind, and therefore it is necessary that the sides of the tank do not rise much above the water surface. This is secured by never letting the water fall 4 in. (and rarely 3 in.) below the sides of the tank.

It is now necessary to explain how the observations are made. As the tank holds about 400 gallons, or nearly two tons weight of

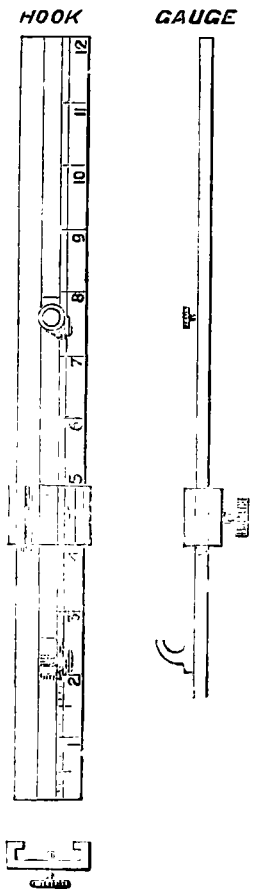
water, it is obviously undesirable to attempt either to measure or to weigh the whole mass of water. Fortunately this is not necessary, and perfectly accurate results can be got without doing so.

Suppose (as was the case) that the tank be filled until the water is $21\frac{1}{2}$ in. deep, it will then be $2\frac{1}{2}$ in. below the top, and it obviously does not matter whether we measure downwards from the top or upwards from the bottom. It is much handier to measure from the top, and I proceed to describe how it is done. Before doing so, however, it may be convenient to explain the broad, general principles of the observation. If rain fall, the tank will evidently collect it, and the level of the water will rise by whatever amount of rain may fall. If the water evaporate, the level will fall by whatever amount evaporates. Having, therefore, once satisfied ourselves that the tank is water-tight, we have only to measure the variations in the level of the top of the water, and to allow for each fall of rain in order to determine the amount of evaporation from time to time.

Now we come to the details and little difficulties, and how they have been overcome. Even on a surface of 36 square feet the wind produces decided waves, and no one can measure accurately the height of a wavy water surface. This difficulty is got over by making a small still-water-pond—*i.e.*, a box about 4 in. square and 1 ft. deep, with a small hole in the bottom; this hangs close to one side of the tank, and the water in it remains at the same level as in the tank, but the waves cannot get in, as they would have to descend and pass through the hole; therefore it is always calm in the still-water-pond.

The changes of level which have to be measured are very small, generally about one-twenty-fifth of an inch, and very often only one-hundredth; therefore some very accurate mode of measurement was indispensable. This is afforded by the instrument known as a hook-gauge for which, as well as for much assistance, I am indebted to Mr. Rogers Field, M.I.C.E. The essential feature of this instrument is the employment of the cohesion of water as an indicator of level. If a point—say the blade of a penknife—be pressed on a water surface it will make a little indentation, which will immediately become visible, because the water surface close to it will slope downwards, make a little dimple, and will therefore reflect light differently from the surrounding water. If, on the contrary, the knife be pushed up from below it will pull up with it a little cone of water, and will thus also, but differently, again disturb the reflection;

and it is only when the knife is within a few thousandths of an inch of the true water level that no distortion is visible.



A front and side view of this instrument will enable its use to be easily understood.* The clamp shown separately at the bottom of the engraving, can be fixed rigidly in any required position. It is represented (as it has always been used) as fixed at 4 in. ; therefore, when the clamp rests on the side of the tank, the bottom of the scale is 4 in. below the top of the tank. The hook is attached to a slide, and can be pushed up and down by the button (which will be noticed near 8 in.) ; the hook is pushed well below the water surface, and then pulled up until a slight mound of water appears, and then it is adjusted until no distortion of the water surface is visible, and thus the level of the water is determined—the hook-gauge reading, as in the engraving, is about $2\frac{1}{2}$ in.—*i.e.*, in that case the water was $1\frac{1}{2}$ in. below the top of the tank. Except by gross carelessness it is impossible to make an error of one-hundredth of an inch in the measurement.

There are two other matters which have to be attended to. In dry weather the evaporation sometimes reduces the level so that it becomes more than 3 in. below the top of the tank. Water is then added to bring it up to a normal level—readings being taken immediately before and after the addition, so that there may be no mistake as to the quantity added. The reverse of this process has to be adopted after long periods of rain, when there is risk of wavelets being driven over the sides, or of out-splashing with heavy rain. The arrangements for both adding and extracting water are temporary, and are such that no addition or loss by leakage is possible.

Now that the tank is in position, few things could be easier or simpler than the keeping of the record. I give the entries for the

* The instrument really in use is an improved form, with rack motion and vernier ; but, as these are only details, it is perhaps better to engrave the simpler pattern.

first week of June, 1887, as a specimen. Readings as a rule are taken only at 9 a.m. :—

	Rain.		Reading of Hook Gauge.		Evaporation.
June 1.....	·01	.....	·83	.....	·04
,, 2.....	—	.....	·79	.....	·06
,, 3.....	·35	.....	1·08	.....	·03
,, 4.....	·50	.....	1·55	.....	·07
,, 5.....	—	.....	1·48	.....	·09
,, 6.....	—	.....	1·39	.....	·08
,, 7.....	—	.....	1·31	.....	—

On June 2nd the level was ·04 lower than on the 1st, therefore the evaporation for the rainfall day of June 1st was ·04.

During June 2nd rain fell amounting at 9 a.m. of 3rd to 0·35, then we had—

Level on 2nd.....	0·79
Rain	0·35
	1·14
Level on 3rd.....	1·08
Evaporation for 2nd	= ·06

In this way the values given in the three following tables have been obtained.

DAILY EVAPORATION AT CAMDEN SQUARE, 1885.

Date.	Jan.	Feb.	Mar.	Aprl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in	in.
1.....	...	(·02)	·05	·06	·02	·09	·11	·11	·02	·03	·02	·01
2.....	...	(·02)	·02	·08	·02	·11	·15	·09	+ ·03	·03	·02	·01
3.....	...	·01	·01	·08	·07	·12	·05	·07	·05	·04	+ ·02	·00
4.....	...	·01	·02	·05	·02	·14	·06	·06	·05	·04	·01	·01
5.....	...	·00	·03	·04	·06	·12	·12	·05	·04	·04	·01	·02
6.....	...	·01	·02	·02	·03	·01	·15	·07	·04	·01	·01	·01
7.....	...	·00	·01	·04	·05	·08	·14	·06	·03	·03	·02	·04
8.....	...	·04	·00	·04	·07	·05	·08	·09	·06	·03	·00	)
9.....	...	} ·03	·02	·02	·03	·02	·09	·10	·11	·02	+ ·01	|
10.....	...	}	·03	·00	·10	·14	·11	·11	(·04)	·02	+ ·01	} ·08
11.....	...	·02	·02	·02	·06	·11	·07	·10	·05	·05	·00	|
12.....	...	·00	·01	·04	·11	·06	·11	·10	·02	·05	·01	)
13.....	...	·02	·04	·03	·09	·09	·10	·11	·03	·01	·00	+ ·01
14.....	...	·03	·01	·05	·10	·11	·10	·04	·03	·00	·00	+ ·02
15.....	...	·02	·03	·06	·08	·12	·14	·05	·06	·03	·01	·00
16.....	...	·02	·02	·03	·07	·13	·13	·08	·04	·02	·01	+ ·03
17.....	...	·01	·04	·05	·08	·08	·10	·07	·03	·01	·02	+ ·02
18.....	...	·03	·05	·07	·07	·08	·05	·08	·03	·01	·00	·01
19.....	...	·01	·05	·07	·06	·05	·07	·08	·01	·02	·00	·00
20.....	...	·04	·03	·09	·03	·09	·06	·07	·03	·03	·01	·01
21.....	...	+ ·01	·05	·12	·03	·14	·07	·04	·05	·02	·00	+ ·01
22.....	...	·00	·01	·12	·04	·09	·14	·01	·04	·01	·00	+ ·01
23.....	...	)	·02	·01	·04	·01	·12	·06	·03	·02	·01	·00
24.....	...	} ·03	·02	·04	·14	·08	·11	·03	·06	·02	·01	·00
25.....	...	}	·01	·10	·02	·07	·12	·04	·06	·02	·02	·00
26.....	...	)	·02	·08	·02	·09	·05	·08	·06	·04	·00	+ ·01
27.....	...	·01	·05	·05	·05	·14	·14	·02	·02	·04	·01	·01
28.....	...	·01	·02	·10	·10	·11	·17	·11	·04	·05	·01	·02
29.....	...	...	·05	·07	·13	·12	·14	·14	·01	·03	·00	} ·01
30.....	...	...	·06	·08	·04	·12	·12	·10	·02	·00	·00	}
31.....	...	...	·04	...	·15	...	·12	·03	...	·00		+ ·02
Totals.....	(·20)	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11
Greatest daily amount		·04	·06	·12	·15	·14	·17	·14	·11	·05	·02	·04

DAILY EVAPORATION AT CAMDEN SQUARE, 1886.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1 ..	+ ·01	·02	+ ·03	·08	·09	·04	·13	·09	·07	·07	·02	·01
2...	+ ·02	+ ·02	·03	·00	·09	·08	·12	·07	+ ·03	·05	·00	·01
3...	·01	·01	·01	·06	·08	·05	·11	·06	·07	·00	·02	
4...	·01	·02	·06	·04	·06	·12	·18	·06	·02	·03	·02	·02
5...	·01			·03	·05	·11	·09	·04	·07	·02	·02	
6...			·05	·09	·09	·12	·22	·06	·06	·02	·02	+ ·01
7...				·01	·07	·12	·17	·04	·07	+ ·01	·04	·02
8...		·03		·05	·04	·10	·12	·10	·06	·00	·01	·04
9...	·48		·02	·07	·09	·08	·11	·02	·03	·06	·01	·02
10...			·07	+ ·02	·08	·03	·08	·04	·04	·05	·00	·01
11...			·03	·04	·01	·09	·09	·13	·02	·05	·01	·00
12...		+ ·01	·03	·04	·05	·06	·03	·04	·03	·00	·00	·00
13...	+ ·01	·04	·08	·04	+ ·01	·08	·08	·06	·05	·04	·00	·00
14...	+ ·01	+ ·06	·00	·01	·05	·07	·15	·11	·09	·03	·01	·01
15 ..	+ ·03	+ ·02		·04	·06	·12	·10	·00	·10	·00	+ ·01	·02
16...	+ ·01	·00	·02	·05	·00	·12	·11	·10	·06	·02	·02	·01
17...	·01	·01	·01	·02	·02	·09	·00	·08	·10	·02	·03	·01
18...		·00	·00	·01	·10	·05	·12	·02	·05	·00	·01	
19...		+ ·01	+ ·05	·05	·00	·11	·04	+ ·01	·04	·01	·00	
20...	+ ·03	·01	+ ·02	·07	·05	·13	·08	·05	·06	·01	·00	+ ·02
21...		·02	·02	·05	·10	·05	·13	·03	·06	·01	·01	
22...		·00	·02	·05	·04	·05	·22	·08	·08	·03	+ ·01	
23...	+ ·02	·10	·00	·06	·03	·16	·03	·06	·07	·01	·01	·01
24...	·00		·03	·12	·02	·16	·10	·05	·06	·00	·00	
25...	+ ·02	+ ·01	·01	·12	·07	·12	·05	·11	·03	·03	·00	
26...	+ ·05		·03	·08	·05	·12	·09	·08	+ ·03	·01	·00	
27...	+ ·02	·00	·00	·09	·15	·11	·08	·07	·02	·02	·00	+ (·04)
28...	·00		·04	·05	·10	·13	·08	·04	·05	·02	·00	
29 ..	·00	...	·04	·08	·08	·10	·07	·06	·03	·01	·02	
30...	+ ·06	...	·00	·11	·01	·16	·07	·06	·03	·01	·01	
31 ..	·00	...	·07	...	·06	...	·07	·06	...	·01	...	
Totals...	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12
Greatest daily amount	·01	·04	·08	·12	·15	·16	·22	·13	·10	·07	·04	·04

DAILY EVAPORATION AT CAMDEN SQUARE, 1887.

Date.	Jan.	Feb.	Mar.	Aprl.	May.	June.
	in.	in.	in.	in.	in.	in.
1.....		+ ·01	·01	·01	·06	·04
2.....		·01	·02	·01	·01	·06
3.....		·02	·02	·05	·03	·03
4.....	(+ ·04)	·00	·00	·04	·01	·07
5.....		·02	·01	·04	·05	·09
6.....		·00	·03	·06	·00	·08
7.....	+ ·02		·02	·07	·06	·07
8.....	·02	·02	·03	·08	·10	·07
9.....		·02	·03	·06	·11	·15
10.....	+ ·02	·05	·01	·06	·11	·13
11.....	+ ·03	·00	·01	·07	·05	·14
12.....		·03	·01	·06	·08	·16
13.....	·01	·00	·01	·07	·05	·16
14.....		·00	·01	·06	·11	·11
15.....		·00	·02	·07	·12	·15
16.....	·07		·04	·09	·09	·11
17.....		·00	·00	·06	·03	·18
18.....	+ ·02			·06	·04	·20
19.....	+ ·03	+ ·01		·08	·03	·20
20.....	+ ·02	·02	·09	·11	·10	·19
21.....	+ ·01	·01		·05	·04	·23
22.....	·04	·03	·03	·06	·07	·20
23.....	·01	·03	·06	·08	·06	·15
24.....	·00	·02	·02	·04	·03	·16
25.....	+ ·03	·04	·01	·03	·07	·06
26.....	+ ·01	+ ·03	·04	·06	·14	·06
27.....	·01	·00	·05	·05	·00	·14
28.....	+ ·01	·02	·05	·05	·02	·10
29.....	+ ·01	...	·04	·05	·06	·12
30.....	·01	...	·04	·04	·01	·07
31.....	·01	...	·05	...	·05	...
Totals.....	+ ·07	·29	·76	1·72	1·79	3·68
Greatest daily amount	·04	·05	·06	·11	·14	·23

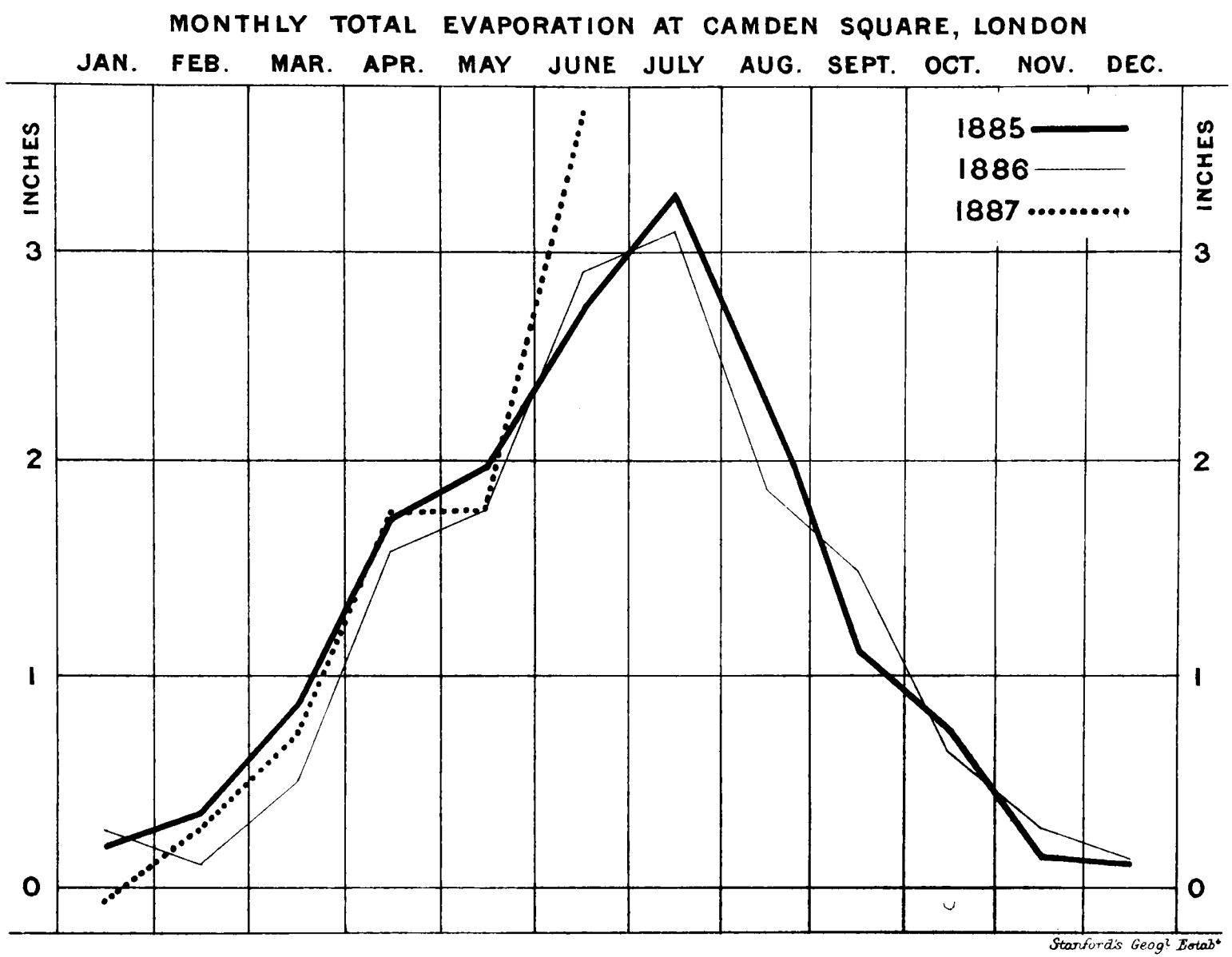
Of course, nothing human is perfect, and there were a few, very few occasions on which difficulties have arisen. I will now give the list of them, putting along with them such remarks as I find in the observation book, many of the said remarks throwing much light on the observations.

1885.—The amount for January and for the first two days of February was estimated, as the tank was not in working order till February 2nd.

Feb. 23rd to 26th.—Tank frozen, no readings possible.

March 8th to 23rd.—Floating ice at intervals. (The ice is always broken up as far as practicable, so as to insure continuity of records; of course no ice is taken away, it remains floating on the surface.)

August 1st.—Tank covered with scum; this was removed and the level restored.


MONTHLY TOTAL EVAPORATION AT CAMDEN SQUARE, LONDON
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.
INCHES
3
2
1
0
1885
1886
1887
Stanford's Geogl Estab.t

August 28th and 29th.—Windy, rather large evaporation.

September 2nd.—Condensation of ·03, a warm, moist air having come up during the night.

September 10th.—Amount estimated. The tank was rather full (1·77 in. below rim), when 1·48 in. of rain fell with a heavy gale at night, and water was blown out of the tank.

December 9th to 12th.—Ice too thick to break. Much ice in tank nearly all the month, causing much condensation.

1886.—January.—Often frozen solid until 22nd, and I am doubtful as to the recorded loss of ·48; subsequently ice constantly floating and producing great condensation, notably on 26th and 30th. On the former day the air was very warm and moist.

February and March.—Much ice, sometimes solid and sometimes floating; it produced considerable condensation on 19th and 20th and all melted away before the next day.

July 22nd.—Large evaporation, high wind.

July 23rd and 24th.—Large evaporation, both days hot and windy.

December 1st to 10th and 18th to 23rd.—Ice, either solid or floating.

December 26th.—Gale and snowstorm; reading absurd, and therefore value estimated.

1887.—January.—Ice, either solid or floating, until 24th, and consequently much condensation.

February and March.—Ice, more or less, nearly all both months.

May 26.—Evaporation ·14 weather warm, with E wind.

,, 27 ,, ·00 ,, wet, dull, and calm.

June 9 ,, ·15 ,, warm and windy.

,, 17 ,, ·18 ,, bright, with fresh N.E. wind.

,, 21 ,, ·23 ,, bright and hot—Jubilee Day—and the largest daily evaporation yet recorded.

A few words may now be added respecting the results. A comparison of the totals for all the thirty months is very striking :—

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
1885.	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886.	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887.	+·07	·29	·76	1·72	1·79	3·68							

But whenever one wants to make anything clear it is desirable to try to throw it into a diagram. This is done in the accompanying lithograph, and the agreement of the two years and of the half of the third is extraordinary.

Equally marked is the agreement in the maximum evaporation on any one day in each month, which is as follows :—

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.
1885.	—	·04	·06	·12	·15	·14	·17	·14	·11	·05	·02	·04
1886.	·01	·04	·08	·12	·15	·16	·22	·13	·10	·07	·04	·04
1887.	·04	·05	·06	·11	·14	·23						

Therefore it does not seem probable that the continuance of the observations will give materially different results. But a mean evaporation, scarcely exceeding 15 inches, may be thought to be a very low value, and prompts enquiry as to whether there is anything that makes it unduly low. In *British Rainfall*, 1869, Mr. Rogers Field gave abstracts of the best French experiments on evaporation; and the five stations in Central France gave respectively 22·3, 24·7, 22·2, 19·3, and 23·4, or a mean of 22·4 in. Looking at the relative temperature and humidity of London and of Burgundy, it seems very reasonable that the evaporation in Burgundy should be about 10 per cent. more than in London. And there is partial support of the Camden Square values, in the fact that the small tank, which Mr. Greaves kept floating in a mill stream in the East of London, gave an average of only 20·9 in. against the 22·4 in. in Burgundy. There still remains the question why mine is 5 in. below his. Possibly my London garden is too sheltered. I have, therefore, taken two sections—one S.W.—N.E. and one S.E.—N.W. These show that the surrounding objects rise to the following angles :—

S.W. Office	9°	.....	N.E. House	29°
N.W. Wall	16°	.....	S.E. Wall	16°

Joining by a straight line the roof of the office, 44 ft. SW. of the tank, and the roof of the house, about 75 ft. N.E. of it, this line would pass about 20 ft. above the level of the tank. No one knows what flexure is usual with air currents, and nothing but Casella's Altazimuth anemometer would tell us, but I feel sure that the full velocity of the wind does not occur on the surface of the tank. The evaporation recorded is accurately that of a pond in the position above indicated, but a more exposed pond would lose more—how much more can only be determined by repeating the experiments in some very exposed locality. My present opinion is, however, that the evaporation from a large water surface will not in this country exceed, if it reaches, an average of 20 in.

P.S. I see from Mr. Peek's annual report, that at Rousdon Observatory, in 1886, the water tank gave 22·81 in. as the evaporation. This is about what, from the engraving, I should have thought likely—the tank is 2 ft. square and 1 ft. deep, therefore its capacity is only 4 ft. against the 72 ft. of mine or 1-18th—and this (no matter what precautions are taken) necessarily involves more heating of the water. The hotter the water relatively to the dew point

the greater the evaporation, and the only way to keep the temperature of the water truly representative of that of a lake or river is by either having the evaporator very large and burying it in the ground, or by floating it in a large body of water. While Mr. Peek's tank remain 4 ft. above the ground, I do not see that he can do better than he has done by surrounding the sides with louvres like a Stevenson thermometer stand. I adhere to my original idea that the true amount is more than my own measurements, and less than Mr. Peek's.

NEW RAIN GAUGES IN THE LAKE DISTRICT.

TWENTY years since, or rather more, it was proposed to bring an abundant supply of pure (*i.e.*, uncontaminated) soft water to London by the utilization of the three large lakes—Thirlmere, Haweswater and Ullswater. But nothing was known of the amount of rain which fell upon the many miles of Fells which feed Haweswater; and very little was known as to those which feed Thirlmere. When I was consulted by the engineers of the scheme, as to the amount of water which would be available, I told them that though Dr. Miller had investigated with much care the rainfall of the Western lake district, Derwentwater, Wastwater, Crummock, Buttermere and Loweswater, he had not had a single gauge N.E. of the road from Grasmere to Keswick. I told them the results of the gauges kept at Patterdale Hall, by Mr. W. Marshall, M.P., and at Hallsteads by Mr. A. Marshall, and of such few other fragmentary records as existed, and I said that it was imperative that a number of new gauges should be put down in order that the fall over the great district (about 100 square miles) which they proposed to utilize should be properly ascertained. This was agreed to, and I undertook to fix them all myself, and this I did in September, 1866—a month of which I have still a pleasant recollection, though the rain was far heavier than I have in any other year personally experienced in the lakes; in that September the Stye gauge collected 22·26 inches. But that is a digression. I erected altogether thirteen gauges; but as an engraving of the gauge, and full details of the position of each are given in *British Rainfall* 1867, it is unnecessary to repeat them. I need not say that these gauges were not erected without much climbing, much care, and much hard work. But it was done, and every gauge was in position on the morning of October 1st.

During the subsequent 20 years I have done my best to keep up the organization, but what with paying the observers, what with repairs, correspondence, visits to the district, new gauges, &c., it has been costly both in time and in money.

As the repairs and dilapidations seemed more serious than usual in 1886, I considered that the best plan would be to make a tolerably thorough personal investigation of the state of affairs; and knowing that some of the gauges put down in 1866 were reported leaky in two or three years, I thought that it was possible that others might be on the point of becoming so. Not being able to afford a large supply of new gauges, I applied for a sum from the Government Grant Fund to pay expenses out of pocket, and with that sum purchased, and conveyed to their destination 24 new gauges.*

Some of these are taken daily, some monthly, some are miles from the nearest house, some close to gauges put down in 1866, so as to check their accuracy; but I believe that all are doing good service.

The fall on the Stye is so exceptional that it seemed of interest to ascertain whether the gauge put down by Mr. Isaac Fletcher in 1864, on the (supposed) site of the one erected by Dr. Miller, F.R.S., in 1850, was really in the wettest spot. I, therefore, put down two new ones in a line stretching 1,000 ft. S.E.ward from the old gauge—one at 600 ft. and the other at 1,000 ft. I was unable to ensure regular records until December, 1886, but the subsequent months indicate that the fall decreases S.E.ward, *i.e.*, that the old gauge is in a wetter position than either of the new ones.

Another feature of importance in the new distribution is an attempt to obtain records from the at present unknown (rainfally) recesses of the tract known as Skiddaw Forest. Thanks chiefly to my old correspondent, the Rev. J. Brunskill, of Threlkeld, we have now a line of gauges from Settra (south of the railway and *à fortiori* south of Threlkeld), past Threlkeld Vicarage, then one high up on the side of Blencathra, and finally one away to the N.W. at Uldale.

Then, in various parts of the district, especially near Cross Fell, and in Mardale, I have been greatly helped by Mr. T. G. Benn, F.R.Met.Soc., of Newton Reigny.

I may mention also that the line of gauges from Scafell to the north end of Bassenthwaite, has been greatly improved by the addition of new stations at Borrowdale Vicarage, and at the Hamlet of Grange at the head of Derwent Water.

It is only right to mention here the important fact of the starting of two new gauges by Major Alcock Beck on Esthwaite Water, one

* Three are, however, in reserve, under Mr. Benn's care at Newton Reigny Observatory.

of them in almost the identical position occupied by a gauge half a century since. These were provided by Major Beck at his own cost, and are not chargeable on the grant.

We are often told, and I am not going to deny it, that zinc (which I used in 1866, because of the great cost of copper) is a bad material to use for rain gauges. Perhaps it is, but it does not always fail. I fixed the gauge at Watendlath, in September 1866, and in August 1886, the gauge was in perfect order, and did not look as if it had been down more than a twelvemonth !

RECENT ANNUAL RAINFALL COMPARED WITH THAT OF THE PREVIOUS 160 YEARS.

IN *British Rainfall*, 1882, we gave as a frontispiece a diagram representing the total fall of rain over central England for each year, from 1726 to 1882. Full descriptions of how it had been prepared were given in that and in some previous volumes. It subsequently appeared that although the calculations had been made correctly and correctly printed in *British Rainfall*, 1881, page 24, an error had been made in drawing the diagram for one of the years, the value for 1870 was made to be 22 per cent. above the mean instead of 22 per cent. below it. Directly that the error was detected it was notified, but still the diagram was not perfect, and of course I did not like that. Moreover there are five years which can now be added, and therefore I have decided upon re-printing the diagram, correcting the above error, also an almost invisible one of 1 per cent. produced by a mistake at Boston in 1845, and completing the diagram up to date.

In doing this I have come accidentally upon one of those unexpected agreements which give me so much confidence in rainfall work. The data for drawing the diagram for 1882—86 are as under :—

		Chilgrove.	Nash Mills.	Oxford.	Exeter.	Orleton.	Pode Hole.	Boston.	Bolton.	Kendal.	Mean.
Mean 1830–79.....		33·61	26·82	23·40	30·33	30·00	25·57	22·66	47·39	51·48	
Rainfall	1882.. ...	35·71	35·22	30·00	38·98	40·71	30·50	30·18	54·07	59·82	
	1883.....	32·77	29·39	26·00	33·64	30·73	30·88	32·53	45·99	51·51	
	1884.....	26·42	22·52	18·10	27·28	25·96	16·75	16·35	35·75	44·47	
	1885.....	33·47	31·56	24·00	35·38	31·12	23·88	23·31	42·28	45·83	
	1886.....	38·04	29·11	24·45	33·46	35·37	30·25	26·78	47·17	58·98	
Ratios	1882.....	106	132	128	128	136	119	133	114	116	124
	1883.....	98	110	111	111	103	121	144	97	100	111
	1884.....	79	84	77	90	87	66	72	75	86	80
	1885... ..	100	118	103	117	104	94	103	89	89	102
	1886.....	113	109	104	110	118	118	118	100	115	112

Now we come to the unexpected agreement. It occurred to me that these final means ought to agree tolerably with the value

assigned to England and Wales in the table on p. [135] of *British Rainfall*, 1882, and with the values in corresponding tables in subsequent years. It will be remembered that we have repeatedly stated that the mean there used (1870-79) is about 5 per cent. too high, we therefore give (1) the value as printed in the table; (2) the correction of 5 per cent; (3) the same value expressed as a ratio so as to get rid of + and – signs, and to have it in exactly the same form as that used for the diagram; (4) the values as worked on the previous page; (5) the difference of the results of the two totally different methods:—

	1882.	1883.	1884.	1885	1886.	Mean.
Value from p. [135], 1882, *et seq.*	+ 19	+ 4	— 20	— 6	+ 5	+ 0·4
Correction	+ 5	+ 5	+ 5	+ 5	+ 5	+ 5·0
	124	109	85	99	110	105·4
From previous page.	124	111	80	102	112	105·8
Difference	0	+ 2	— 5	+ 3	+ 2	+ 0·4

Thus two entirely dissimilar processes, one based upon only nine returns, and the other on about 130, give no case of a greater difference than 5 per cent., and for five years a mean agreeing within 0·4 per cent., or 1-250th.

We need not repeat remarks which we have previously made on the facts brought out by the diagram, but now that 1883 is added, the unique character of the nine consecutive wet years is more marked than it was before—there is nothing approaching it, not even back to 1726.

ROTHERHAM EXPERIMENTAL GAUGES.

It is unnecessary this year to occupy much space with remarks upon these experiments.

The construction and position of the gauges have been fully described and illustrated in previous issues of *British Rainfall*, but they may be briefly stated as follows :—

The gauges are all 5 inches in diameter, and are placed in a line running from S.W. to N.E., and at distances of about 100 ft. between each pair of gauges, along the bank of Ulley Reservoir, a few miles S. of Rotherham. Those at Station No. 1 are 1 ft. above the ground ; all the others are 5 ft.

The rainfall is practically uniform along about 300 ft. of the middle of the bank, and increases by about 4 per cent. at each end or—which would more nearly express the same facts correctly—the rainfall is alike at each end of the bank, but along the centre, for a length of about 300 ft., it is less by about 4 per cent. As this is true not only for 1886 but for the mean of four years, and for every one of the four, it may probably be safely regarded as proved. And, moreover, it is what might have been expected, for obviously the middle of the bank is near the middle of the valley, where the bank is highest and the wind is strongest—that is to say, the middle gauges ; which collect least are those which are in the most exposed position.

It is a curious fact, of which I can suggest no explanation, that on the occasion of the great rain on May 12th and 13th, the distribution was almost exactly the reverse of that above described. The following are the records :—

	No. 1. 1 ft.	No. 2. 5 ft.	No. 3. 5 ft.	No. 4. 5 ft.	No. 5. 5 ft.	No. 6. 5 ft.
May 12.....	1·485	1·400	1·451	1·483	1·523	1·569
,, 13.....	1·884	1·680	1·734	1·725	1·479	1·558
Total.....	3·369	3·080	3·185	3·208	3·002	3·127

RAIN GAUGE EXPERIMENTS, ULLEY RESERVOIR, ROTHERHAM, 1886.

Lat. 50° 22′ 59″ N. Lon. 1° 19′ 9″ W. Altitude 184 ft.

Months.	Five Mouthed Gauges. 5 ft. above ground.					Inclined Rotating Gauges. 5 ft. above ground.			
	Facing East.	Facing North.	Facing West.	Facing South.	Horizon Centre.	22½°	45°	67½°	90°
January	8·296	5·041	2·919	1·739	2·197	5·202	7·330	7·151	7·542
February.....	·897	·708	·316	·134	·353	·690	1·040	1·040	1·073
March	2·386	1·465	1·020	1·335	1·437	2·452	3·324	4·015	4·101
April	2·476	1·500	·449	·677	1·437	1·848	2·736	2·476	2·174
May.....	3·496	3·920	·669	·928	5·347	6·557	6·770	7·667	6·304
June	·370	·405	·042	·204	·716	·892	·902	·769	·563
July	·844	·314	·592	1·313	3·635	3·907	3·730	3·929	2·933
August	·192	·378	·142	·509	1·379	1·491	1·439	2·093	·862
September ...	·096	·362	·312	·376	·782	·959	1·078	1·042	·875
October	3·440	2·103	·430	1·353	3·886	5·016	5·863	5·412	4·702
November ..	1·152	·445	·314	·624	·894	1·253	1·494	1·472	1·334
December ...	3·402	2·966	1·813	1·812	2·695	4·193	5·760	6·140	5·990
Year	27·047	19·607	9·018	11·004	24·758	34·460	41·466	43·206	38·453

Months.	Position No. 1. 1 ft. above ground.			Position No. 2. 5 ft. above ground.			Position No. 3. 5 ft. above ground.		
	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.
January	3·190	3·146	—·044	2·322	2·140	—·182	2·389	2·304	—·085
February.....	·429	·373	—·056	·443	·343	—·100	·415	·329	—·086
March	1·807	1 772	—·035	1·882	1·441	—·441	1·355	1·060	—·295
April	1·602	1·626	+·024	1·468	1·472	+·004	1·456	1·459	+·003
May.....	5·719	5·883	+·164	5·352	5·430	+·078	5·427	5 487	+·060
June	·781	·830	+·049	·624	·830	+·206	·713	·830	+·117
July.....	3·765	3·752	—·013	3·397	3·562	+·165	3·346	3·437	+·091
August	1·443	1·468	+·025	1·330	1·353	+·023	1·318	1·363	+·045
September ...	·856	·908	+·052	·718	·744	+·026	·696	·741	+·045
October	4·135	4·175	+·040	3 698	3·171	—·527	3·728	3·389	—·339
November ...	1·025	1·042	+·017	·752	·922	+·170	·865	·876	+·011
December ...	2·888	2·920	+·032	1·957	2·444	+·487	2·304	2·361	+·057
Year	27·640	27·895	+·255	23·943	23·852	— ·091	24·012	23·636	—·376

Months.	Position No. 4. 5 ft. above ground.			Position No. 5. 5 ft. above ground.			Position No. 6. 5 ft. above ground.		
	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.
January	2·569	2·519	—·050	2·686	2·599	—·087	2·822	2·781	—·041
February.....	·351	·341	—·010	·343	·358	+·015	·375	·373	—·002
March	1·338	1·330	—·008	1·273	1·346	+·073	1·388	1·380	—·008
April	1·465	1·451	—·014	1·472	1·500	+·028	1·537	1·513	—·024
May.....	5·484	5·540	+·056	5·200	5·009	—·191	5·518	5·493	—·025
June	·729	·674	—·055	·821	·711	—·110	·762	·742	—·020
July...	3·318	3·419	+·101	3·305	3·340	+·035	3·291	3·421	+·130
August	1·327	1·330	+·003	1·283	1·336	+·053	1·359	1·359	·000
September ...	·706	·715	+·009	·601	·734	+·133	·732	·759	+·027
October	3·826	3·731	—·095	3·863	3·766	—·097	4·070	4·042	—·028
November ...	·861	·875	+·014	·829	·884	+·055	·926	·945	+·019
December ...	2·353	2·492	+·139	2·374	2·470	+·096	2·482	2·576	+·094
Year	24·327	24·417	+·090	24·050	24·053	+·003	25·262	25·384	+·122

RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat. 51° 28′ 38″ N. Long. 0° 0′ 0″

Communicated by W. H. M. CHRISTIE, ESQ., M.A., F.R.S., F.R.A.S., &c., Astronomer Royal.

1886	No. of days on which rain fell.	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.							
		Osler's Anemometer.		On roof of Octagon Room.	On roof of Magnetic House.	On roof of Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
		Self-registering Gauge.	Second Gauge.				6	7	8
Height above Ground.	...	50ft. 8in.	50ft. 8in.	38ft. 4in.	21ft. 9in.	10ft. 0in.	5in.	5in.	5in.
Height above Mean Sea Level.	...	205ft. 6in.	205ft. 6in.	193ft. 2in.	176ft. 7in.	164ft. 10in.	155ft. 3in.	155ft. 3in.	155ft. 3in.
		in.	in.	in.	in.	in.	in.	in.	in.
January	22	1·920	1·815	2·709	3·063	3·637	3·679	3·701	3·731
February	10	·405	·450	·476	·508	·560	·562	·574	·586
March	15	·489	·533	·768	·885	1·081	1·138	1·074	1·080
April	12	·635	·638	·870	1·083	1·200	1·263	1·251	1·259
May	15	2·970	3·075	3·623	4·039	4·234	4·230	4·235	4·240
June	9	·252	·269	·312	·403	·432	·440	·406	·454
July	13	1·908	1·903	2·199	2·326	2·461	2·509	2·432	2·459
August	10	·773	·782	·950	1·040	1·104	1·116	1·093	1·130
September	10	·677	·693	·983	1·169	1·242	1·243	1·214	1·263
October	14	·789	·774	1·008	1·246	1·389	1·412	1·386	1·435
November	15	2·052	2·096	2·546	2·784	2·984	3·019	3·051	3·132
December	18	1·789	1·764	2·349	2·796	3·083	3·601	3·581	3·682
Sums	163	14·659	14·792	18·793	21·342	23·407	24·212	23·998	24·451
No. of Gauge	...	1	2	3	4	5	6	7	8

A rainy day is considered to be one on which 0·005 in., or more, is collected in gauge No. 6.
Of the ground gauges 6, 7, and 8, No. 6 is taken as standard, No. 7 is the old monthly gauge, and No. 8 is a gauge added in 1881.

April 6, 1887.

WILLIAM ELLIS,
For the Astronomer Royal.

THE STAFF OF OBSERVERS.

WHETHER a system of scientific observation be official or voluntary, there will come in as disturbing factors the habits, the health and the age of the observers. An official organization, if it had the funds necessary for purchasing freehold sites for observatories, would undoubtedly contribute largely towards that which is so needful for Meteorology, viz., records going on for decades, or better still, for centuries, with the same instrument in the same place. Still, even then, the human element comes in, and the "personal equation" is no more to be ignored in Meteorology than in Astronomy. And if the changes incidental to a voluntary staff are rather more numerous than they would be with a paid one, it needs little thought to see that there are many other points on which the advantage is in the opposite direction. No sum could procure a paid staff with the influence and intelligence of the present one. No paid staff could command sites for their gauges equal to those now occupied by hundreds of the gauges in the parks and gardens of the ancestral homes of England. If, therefore, our changes are somewhat numerous, we must remember the advantages we have just hinted at, and be not only content, but more than that, thankful.

As regards the county organizations, there are no very important changes. The worst is that Mr. Radford Sharpe has given up printing the daily rainfall in Essex, and now prints only monthly abstracts. We have some hope that the Essex Field Club may be induced to come to the rescue. The Rev. Canon Du Port maintains the high character of the daily tables for Norfolk, and the Rev. C. Soames is continuing those for Wiltshire. In Herts, Northamptonshire, Cambridge, Devon, Cornwall, Gloucester and Herefordshire monthly abstracts are published. In all other counties, as far as I am aware, nothing is done. Why nothing?

The following table shows that the number of perfect records which have been utilized is 2488, but this by no means represents the total number of returns which I receive, because the slightest

imperfection ensures the return being placed with the bundle of "imperfects"—a group which, for 1886, numbers rather more than 200.

It will be seen that our total number is the same as last year—in fact for four years we have been nearly stationary, the new observers being little more than sufficient to replace the absentees. We should be very glad if the falling off in Scotland could be stopped. Surely some of our readers have shooting or fishing places in Scotland at which the gillies might be instructed to keep regular records. Can nobody do anything this autumn?

Number of perfect rainfall records published in the volumes of British Rainfall for the undermentioned years :—

Years.	England.	Wales.	Scotland.	Ireland.	Gross Total.
1860	163	5	—	—	168
1861.....	334	9	109	20	472
1871.....	1038	88	311	67	1504
1881.....	1548	131	313	153	2145
1882.....	1710	145	335	148	2338
1883.....	1785	145	357	146	2433
1884.....	1812	143	353	155	2463
1885.....	1825	161	346	154	2486
1886.....	1835	155	344	154	2488
Difference from 1885.					
Increase.	10	—	—	—	2
Decrease.	—	6	2	0	—

ENGLAND AND WALES.

ABSENT RECORDS. INSERTIONS.

MIDDLESEX (57).*

Hanworth (Riversdale)—*Record ceased.*
Ealing (Ashburne)—*Record ceased.*
Westminster (Spring Gardens) *3rd g.*—*Rec. imp.*
Kensal Green (Gas Works)—*Record imp.*

Twickenham (High Shot House).
Kensington (Edith Road).
Hampstead (Branch Hill Lodge.)
Holloway (Manor Road).
Finchley (Etchingham Park).
,, (,, ,,) *2nd g.*
Enfield (Forty Hill).
,, (,,) *2nd g.*
,, (,,) *3rd g.*

* These and similar figures denote the total number of perfect records for the county which are given in the general tables p. [158] *et seq.*

SURREY (72).

Godstone (Tyler's Green)—*Record ceased.*
Titsey [Westerham]—*Record ceased.*
,, (Botley Hill Farm)—*Record ceased.*
Caterham Asylum—*Record imp.*
Kenley—*Record ceased.*
Weybridge Heath (Bartropps)—*Record imp.*
Wallington (Harcourt Road)—*Gauge moved.*
South Norwood (Cumberlow)—*Record ceased.*
,, ,, (,,) *2nd g.—Rec. ceased.*
Border Lodge [Forest Hill]—*Record imp.*
Buckland (Shagbrook).
Dorking (High Ashurst).
Horsley Towers.
Chobham (Ottershaw).
Weybridge Heath (Netherfield).
Sutton (Grange Road).

KENT (86).

Tunbridge Wells (Blackhurst)—*Record ceased.*
Edenbridge (Falconhurst)—*Record imp.*
Deal (Northbourne)—*Record ceased.*
Sandwich (Walton Ho., Eastry)—*Rec. ceased.*
Westerham (Betsom's Hill)—*Record ceased.*
Aylesford (Preston Hall)—*Record imp.*
Sittingbourne (Rodmersham)—*Record imp.*
Faversham (Oare)—*No reply.*
Farnborough (Leaves Green)—*Record ceased.*
Keston—*Record imp.*
,, —*2nd g—Record imp.*
Birchington (Thor)—*Record ceased.*
Rochester (Higham)—*No reply.*
Eltham (Ellerslea, Southend)—*Record ceased.*
Erith (Belvedere)—*Record ceased.*
Hawkhurst (Sandhurst Rec.) *2nd g.*
Gowdhurst Vicarage.
Tunbridge (Penshurst Place).
Sittingbourne (Hartlip Place).
Forest Hill (Newfield House).
Blackheath Park (Elmsdale).

WEST SUSSEX (23).

Worthing (Broadwater Road)—*Record ceased.*
West Thorney—*Observer moved.*
Horsham (Albion Terrace)—*Record ceased.*
,, (Compton's Lea)—*Record ceased.*
Arundel (Clapham Rectory).
,, (Dale Park).
Compton [Petersfield].
Midhurst (Lynch Farm).
Horsham (Rusper) *2nd g.*

EAST SUSSEX (48).

Brighton (Buckingham Place)—*Record imp.*
Warbledon Rectory—*Observer dead.*
Eastbourne (Wilmington Square).
Brighton (W.W. GodstoneBottom).
St. Leonards (London Road).
Hastings.
Lewes (Bedford Lodge).
Battle (Whatlington).
Burgess Hill (Prescott).
Maresfield (Fletching).
,, (Sheffield Park).

HAMPSHIRE (68).

St. Lawrence—*Observer dead.*
Droxford Rectory—*Record ceased.*
Petersfield (Castle House)—*Record ceased.*
Alton (East Worldham)—*Record imp.*
Andover (Red Rice)—*Observer dead.*
Dogmersfield Park.—*No reply.*
Bramley—*Record imp.*
Brading.
Newport (Lugley House).
Havant (Farlington).
,,
Idsworth House.
Southampton (Red Lodge) *2nd g.*
Alresford (Ropley).
,, (Arle-Bury).
Tedworth House [Ludgershall].
Aldershot.

BERKS (21).

Hungerford (Poughley)—*Observer moved.*
Maidenhead (Kimber's Cottage).—*Rec. ceased.*
Reading (Portland Place).
Long Wittenham (Lovegrove's Cot.)

HERTS (38).

Bushy Station—*Record ceased.*
Hertford (Haileybury College).—*No obs.*
Welwyn (Danesbury).
Stevenage (Orchard Court).

BUCKS (15).

Aylesbury (Mentmore)—*Record imp.*
Burnham.
High Wycombe.

OXFORD (28).

Burcote [Abingdon]—*Record ceased.*
Banbury (Wroxton).—*Observer moved.*
Watlington (Pyrton).
Filkins [Lechlade].

NORTHAMPTON (40).

Grimsbury [Banbury]—*Record ceased.*
Northampton (Chapel Brampton)—*Rec. ceased.*
Brixworth—*Record imp.*
Oundle (Vine Cottage)—*Observer dead.*
Chacombe House [Banbury].
Courteenhall Rectory.
Blisworth.
Preston Deanery.
Castle Ashby.
Northampton (Coton Mill).
,, (Agnes Road).
Daventry (Waterloo).
Oundle (Talbot Hotel).
,, (Queen Anne's Place).

HUNTS (4).

St.Neots (Waresley Vicarage)—*Record ceased.*
Huntingdon—*Record ceased.*

BEDFORD (23).

Podington.

CAMBRIDGE (29).

Chatteris (HorsewayLock)—*Record unreliable.*
Wisbech (Observatory)—*No reply.*

ESSEX (34).

Southend—*Record imp.*
Leyton (Observatory)—*Observer dead.*
Walthamstow(ProspectHillLodge)—*Rec.ceased*
Billericay (Bellhouse)—*Record ceased.*
Harlow (Moor Hall)—*Observer moved.*
Dunmow (New Street)—*No reply.*
Southend (Avenue Road).
Brentwood (Dudbrook House).
Dedham (The Rookery).

SUFFOLK (35).

Stowmarket (Upland Hall)—*Record imp.*
Bury St. Edmunds (Barton Hall)—*No reply.*
Sudbury.
Woodbridge (The Cedars, Melton).
Leiston (Alma Cottage).
Bury St. Edmunds.
Lowestoft (Kirkley).

NORFOLK (57).

Diss (Thelveton)—*Observer dead.*
Costessey—*Record imp.*
Cromer (Colne Lodge)—*No reply.*
Holkham—*No reply.*
Long Stratton (Boyland Hall).
Saxlingham Nethergate.
Hingham.
Norwich (Thorpe).
Mattishall.
Fakenham (Pensthorpe).

WILTS (49).

Hindon (Chicklade)—*Record imp.*
Maiden Bradley—*Record ceased.*
Market Lavington (Great Cheverell)—*No reply.*
Alton Barnes—*Record not received.*
Marlborough (The Green)—*Record ceased.*
,, (,,)2*nd g.*—*Record ceased.*
Malmesbury (Minety House)—*Record ceased.*
Thames Head [Cirencester]—*Record ceased.*
Salisbury.
Bradford 2*nd g.*
,, (Holt).
Burbage (Wolfhall).
Shalbourne.
Corsham.
Malmesbury (Charlton Park).

DORSET (20).

CorfeCastle(CreechGrange)—*Gauge unreliable.*
Bere Regis (Bloxworth)—*Gauge moved.*
Blandford (Tarrant Keynston).

DEVON (86).

Abbots Kerswell (Court Grange)—*No reply.*
Ashburton (Leusden Vicarage)—*Record ceased.*
Tavistock (Kelly College)—*Observer moved.*
,, (Mount Tavy)—*Record ceased.*
Beaford—*Observer dead.*
Paignton (Rosenville).
Walkhampton (Meavy).
Tavistock.
Princetown.
Bovey Tracey (Colehays).
Chudleigh (Torquay Waterworks).
Exeter (St. Leonard Road).
Tiverton (Rose Bank).

CORNWALL (34).

Penzance (Poltair)—*Record imp.*
St. Austell (Polcarne)—*Record unreliable.*
Maker Vicarage (Devonport)—*Observer moved.*
Truro (Moresk House).

SOMERSET (45).

Watchet (Old Cleeve)—*Record ceased.*
Radstock (Downside)—*No reply.*
Ilminster (Ilton Vicarage).
Milverton (Fitzhead Court).
Glastonbury (High Street).
Porlock (Ashley Combe).
Frome (Rock House, Mells) 2*nd g.*
Yatton (Chelvey).
Bristol Docks (Underfall Yard).

GLOUCESTER (51).

Nailsworth (Spring Hill)—*Record not received.*
Fairford (Park Farm)—*No reply.*
Stroud (Brimscombe Vic.)—*Observer moved.*
Andoversford (Hampen)—*Observer moved.*
Bristol (Shirehampton).
Gloucester (Denmark Road).
Cheltenham (Sandford Mead).
,, (Heath Lodge).
Tewkesbury.

HEREFORD (24).

Wyastone Leys [Monmouth].
Wigmore.

SHROPSHIRE (26).

Burford—*Record ceased.*
Ludlow (Ashford)—*Gauge upset by flood.*
Broseley (Benthall Hall)—*Record ceased.*
Hanwood—*Record ceased.*
Shrewsbury—*Record ceased.*
,, *2nd g.—Record ceased.*
The Bulthy [Middletown]—*Observer dead.*
Wem (Sansaw Hall)—*Observer dead.*

Condover Hall.
Minsterley (Hampton Hall).
,, (Wallop).

STAFFORD (30).

Alrewas (The Cottage)—*Record imp.*
Uttoxeter (Leigh)—*Record ceased.*
Alstonfield Vicarage—*Record imp.*

Handsworth.
Burton (Derby Road).
,, (Hoar Cross).
Ilam Hall [Ashbourne].

WORCESTER (28).

West Malvern—*Record ceased.*

Droitwich (Ombersley).
Bewdley (Bark Hill).
Acocks Green [Birmingham].

WARWICK (22).

Southam (Stockton)—*Record imp.*
Leamington (Blackdown)—*Record ceased.*
Birmingham (Winson Green)—*Record ceased.*

Kenilworth (Park Hill).
Birmingham (Sheldon Rectory).
,, (The Crescent) *2nd g.*

LEICESTER (25).

Market Harborough (The Hutch)—*No reply.*
Church Langton—*Record ceased.*
Hinckley (Mill Hill House)—*Record ceased.*
Bardon Hill House—*No reply.*
Melton Mowbray (Dalby Hall)—*No reply.*
Whitwick(Mt.St.Bernard Abbey)—*Rec. ceased.*
Charley (Oaks Church)—*Record ceased.*
Black Brook (Spring Barrow)—*Record ceased.*
,, ,, —*Record ceased.*

Leicester (Town Hall Square).
Little Orton [Atherstone].
Swithland (Roecliffe).
,,
,, (The Brand).
,, (Broombriggs Hill).

RUTLAND (6).

Ryhall—*Record ceased.*

LINCOLN (58).

Boston (High Street)—*Gauge moved.*
,, (Churchyard)—*Record ceased.*
Horncastle (Hemingby)—*Record imp.*
Alford (Mablethorpe)—*Observer moved.*
Louth (Westgate)—*Observer moved.*
Ulceby (Killingholme)—*Record ceased.*

Sleaford.
Wrangle.
Spilsby.
,, (Hagworthingham).
Lincoln (St. Catherine's).
Market Rasen (Owmby Rectory).
,, ,,

NOTTS. (33).

Nottingham(Cavendish Cres.N.)—*Rec. ceased.*
,, (Strelley Church)—*Record ceased.*
East Bridgford—*No reply.*
Greasley (Moorgreen)—*Observer moved.*
Stapleford Hall.
Nottingham (Park Hill).
,, (Sherwood).

DERBY (34).

Winshill [Burton]—*Record ceased.*
Derby (Spondon)—*No reply.*
Stapenhill [Burton].
Derby (Holmside, Hazelwood).
Hathersage (Bamford).

CHESHIRE (55).

Neston (Oakhill)—*Record ceased.*
Ashton-on-Mersey(BrunswickCot.)—*Obs.moved*
Sale (Brooklands)—*Record imp.*
Crewe (Wistaston Road).
Macclesfield (Wincle).
Chelford (Astle Hall) *2nd g.*
Arnfield Reservoir, *2nd g.*

LANCASHIRE (142).

Ashton (Knott Hill)—*Return not received.*
Oldham (Brushes Clough)—*Gauge overflowed.*
,, (,, ,,)— ,, ,,
Bolton-le-Moors(Hampden Street)—*Obs.moved.*
,, (Belmont Road)—*Obs. moved.*
Rochdale (Castleton Vicarage)—*No reply.*
,, (Drake Street)—*No reply.*
Wray—*Record imp.*
Arkholme (Storr's Hall)—*Record imp.*
Ulverston (Swarthdale)—*Observer moved.*
Liverpool (Hope Street)
Manchester (St. Bede's College).
,, (Cheetham Hill).
Bolton-le-Moors (Moss Bank)
Rochdale (Fieldhead).
,, (Stone Hill).
,, (Facit).
Blackburn (Calf Lee).
Oswaldtwistle (Waterworks).
Nelson (Coldwell Reservoir).
Hawkshead (Grizedale Hall).

YORK, WEST RIDING (172).

Wath-upon-Dearne—*Record imp.*
Barnsley—*Return not received.*
Strinesdale [Oldham]—*Gauge ran over.*
Doncaster (Kirk Bramwith)—*No observations.*
Ackworth School—*Record imp.*
Leeds (Leventhorpe Hall)—*Record ceased.*
South Milford Rectory—*Gauge ran over.*
Bradford (Queensbury)—*Record imp.*
Leeds (The Museum)—*Gauge ran over.*
Shipley (Moor Head)—*No observations.*
Leeds (Moor Town)—*Observer moved.*
York (Phil.Soc.Gardens) *2nd g.*—*Ret. not recd.*
Pateley Bridge (Castle Stead)—*No reply.*
Boroughbridge (Aldborough)—*Record imp.*
Sedbergh (Long Lane)—*Observer dead.*
Holmbridge (Wessenden Head).
Meltham (Brow Grains).
Honley (Northgate House) *2nd g.*
Bradford (Heaton Reservoir).
,, (,, ,,) *2nd g.*
Bingley (Gilstead Filters).
Leeds (Eccup East).
Leathley (Lindley Wood S.)
,, (,, ,, N.)
Skipton (Counter Hill).
Fewston (Swinsty E.)
,, (,, W.)
,, (Timble).
,, South.
,, North.
,, (Spinksburn.)
Blubberhouses.
West End.
,, (Thruscross).
Skipton (Thorpe Fell).
Knaresborough (Conyngham Hall).
Settle (The Terrace).
Ripon (North Lodge).
Nidderdale (Ramsgill).
,, (Middlesmoor).

YORK, EAST RIDING (25).

Cottingham.
Beverley (Hull Bridge).
,, (Cherry Burton).
,, (Leconfield).
Brandesburton (Hempholm).

YORK, NORTH RIDING (37).

Aysgarth (Nell Bank, Walden)—*Record imp.*
Scarborough (Osgodby)—*Record imp.*
Swaledale (Summer Lodge)—*No reply.*
Fylingdales Moor (Harwooddale Mill)—*Return not received.*
Middlesborough (Southfield Villas) *Ret. not recd.*
Oswaldkirk (The Hermitage).
Pickering (The Rectory).
Leyburn (Bolton Hall) *2nd g.*
Robin Hood's Bay (Fylingdales Vic.)
Mickleton.

DURHAM (28).

Darlington (Dinsdale Rect.)—*Record imp.*
Seaham Harbour—*Record ceased.*
Sunderland (W. Hendon Ho.) *2nd g.—Rec. imp.*
Hartlepool (Hurworth Grange).

NORTHUMBERLAND (40).

Allenheads—*Record ceased.*
Newcastle (Portland Road)—*Record lost.*
Haydon Bridge—*Record ceased.*
North Shields (Billy Mill Res.)—*Rec. ceased.*
,, ,, (Monkseaton)—*Record imp.*
Rothbury (Whitton Tower)—*Record ceased.*
Wooler (Milfield)—*Record imp.*
Belford (Middleton Hall)—*Record ceased.*
Alnwick (Belle Vue House).

CUMBERLAND (59).

Scawfell Pike—*Record imp.*
Braystones—*Observer moved.*
Keswick (Barrow House)—*Record imp.*
Ullswater (Hallsteads)—*Gauge leaky.*
Threlkeld (Settra)—*Record imp.*
Alston (Love Lady Shield)—*No reply.*
Kirkandrews-on-Esk Rectory—*Record imp.*
Sprinkling Tarn.
Carlisle (Rickerby).
,, (Castletown).
Brampton (Denton House).

WESTMORELAND (28).

Kirkby Lonsdale (Biggins House)—*No obs.*
Kendal (Underfell) *3rd g.—Record imp.*
Ambleside (Brathay Vic.)—*Record ceased.*
Elterwater (Woodlands)—*Record ceased.*
,, (Lingmoor)—*Record ceased.*
Shap (Tailbert Beck)—*Record ceased.*
Brougham Hall (Penrith)—*No reply.*
Haweswater (Naddle Forest).
Ullswater (Sharrow Bay) *2nd g.*

MONMOUTH (16).

Blaenavon (Gas Works)—*Gauge blown over.*
Usk (Porthycarne).

GLAMORGAN (23).

Cardiff (Park Place)—*Record ceased.*
Merthyr Tydvil (Gwainvarren)—*No reply.*
Ystalyfera—*Record imp.*
Penarth (Cwrt-y-vil).
Oystermouth (Newton).
Dowlais (Cwm Bargocd).

CARMARTHEN (6).

Llanelly (Waterworks)—*Record imp.*

PEMBROKE (8).

Narberth Rectory—*Record ceased.*
Lower Solva—*No observations.*
Clarbeston (Penty Park).

CARDIGAN (1).

Aberayron (Dolaeron)—*Record imp.*
Aberystwith (Gogerddan)—*Ret. not received.*

BRECKNOCK (15).

RADNOR (8).

Glasbury.

MONTGOMERY (12).

Montgomery—*Record imp.*
Welshpool (Buttington Vic.)—*Gauge moved.*
Dylife Lead Mines.

FLINT (8).

DENBIGH (15).

Chirk (Cefn-y-Wern)—*Record ceased.*
Wrexham (Plas Power)—*No reply.*
Denbigh (Dyffryn Aled)—*Record ceased.*
Wrexham (Brymbo).

MERIONETH (4).

Dolgelly (National School)—*Observer dead.*
Bala (Henblas)—*Record ceased.*

CARNARVON (14).

ANGLESEA (4).

ISLE OF MAN (13).

Castletown—*Gauge moved.*
Douglas (Prospect Hill).
Peel.
The Dhoon.

ISLES OF SCILLY (2).

JERSEY (2).

St. Aubins School—*Record ceased.*
,, ,, *2nd g.*—*Record ceased.*
St. Helier (Hastings Terrace).

GUERNSEY (4).

Villa Carey, *2nd g.*

SCOTLAND.

WIGTON (4).

KIRKCUDBRIGHT (9).

DUMFRIES (8).

Mouswald (Free Ch. Manse)—*Record ceased.*
Langholm (Tudhope)—*Record unreliable.*
Canobie (Byreburnfoot).

ROXBURGH (10).

New Castleton (Kirndean)—*Observer dead.*

SELKIRK (4).

PEEBLES (7).

Peebles (Stobo Castle).

BERWICK (6).

Dunse Castle.

HADDINGTON (4).

EDINBURGH (21).

Moorfoot Hills (Bowbate)—*Record imp.*
Pentland Hills (Crosswood)—*Record imp.*
Rosewell Asylum—*Record imp.*
Pentland Hills (Harlaw)—*Record imp.*
,, ,, (Harbour Hill)—*Record imp.*
Moorfoot Hills (Rosebery).
Gorebridge (Middleton).
Pentland Hills (Hare Hill).
Edinburgh (Napier Road).
,, (Blacket Place).

LINLITHGOW (3).

Linlithgow (Rockville)—*Return not received.*
Whitburn (Polkemmet).

LANARK (9).

Coatbridge (Lochwood)—*Record ceased.*
,, (,,) *2nd g.*—*Record ceased.*

AYR (16).

Old Cumnock (Glaisnock House)—*Record imp.*
Wemyss Bay (Ashcraig).

RENFREW (24).

Lochwinnoch (Castle Semple)—*Record imp.*
New Yetts Dam.

DUMBARTON (5).

STIRLING (6).

BUTE (4).

ARGYLL, MAINLAND (14).

Inverary Castle—*Record imp.*
Oban (Dunollie Castle)—*Return not received.*
Loch Eil (Conaglen)—*No reply.*

ARGYLL, INSULAR (21).

CLACKMANNAN (5).

	Tillicoultry (Tillicoultry Ho.) *2nd g.*
	Dollar (Blairhill).

KINROSS (2).

Cleish Castle—*Return not received.*	

FIFE (11).

Falkland (Lothrie Reservoir)—*Return not recd.*	St. Andrews.
Cupar (District Asylum)—*Record imp.*	,, (The Priory).
	,, (Pilmour Cottage).

PERTH (26).

Muthill (Orchil)—*Return not received.*	Perth (Huntingtower Field).
Pitlochrie (Sunnybrae)—*Return not received.*	

FORFAR (14).

Camperdown Linen Works—*Record imp.*	Dundee (Eastern Necropolis) *2nd g.*
	Kirriemuir (Lednethaie).

KINCARDINE (3).

ABERDEEN (20).

Aboyne (Glen Tana)—*Record imp.*	
Old Deer Manse—*Observer dead.*	

BANFF (4).

ELGIN (6).

NAIRN (2).

WEST ROSS (12).

Loch Alsh (Inverinate House)—*Record unreliable*	Glencarron.

EAST ROSS (8).

Dingwall, H.R.S.—*Record imp.*	Fearn (Lower Pitkerrie).

WEST INVERNESS (17).

Isle of Skye (Dunvegan)—*No reply.*	Ben Nevis Observatory.
	Moidart (Kinloch Moidart).
	Isle of Skye (Broadford).

EAST INVERNESS (9).

Strath Errick (Farraline)—*Record imp.*	Kingussie (H.R.S.)
	Loch Ness (Drumnadrochit).
	Glen Strathfarrer.

SUTHERLAND (10).

Lairg (H.R.S.)—*Record imp.*	

CAITHNESS (7).

ORKNEY (9).

Pomona (Tankerness Hall)—*Observer moved.* | Pomona (Swanbister).

SHETLAND (4).

IRELAND.

CORK (8).

Cloyne (Rostellan Castle)—*Observer dead.*
Fermoy Gas Works—*Gauge blown over.* | Carrigaline (Ravenswood).

KERRY (8).

Kenmare (Inishfea)—*Record imp.*
Mangerton—*Record imp.* |

WATERFORD (6).

Waterford Gas Works—*Record imp.* | Knockaderry.
Waterford (Ticor).
,, (Newtown).

TIPPERARY (6).

Fethard (Mobarnane)—*Record imp.* |

LIMERICK (3).

CLARE (5).

| O'Briensbridge (Ross).
| Broadford (Hurdlestown).

WEXFORD (4).

KILKENNY (5).

Stoneyford (Inisnag)—*Record ceased.* |

WICKLOW (2).

| Enniskerry (Parknasilloge).

CARLOW (1).

QUEEN'S COUNTY (1).

KING'S COUNTY (2).

Portarlington—*Record ceased.*
Rathangan (Clonbrin)—*Record ceased.* | Parsonstown (Birr Castle) *2nd g.*

KILDARE (1).

DUBLIN (10).

| Killiney (Cloneevin).
| Balbriggan (Laragh).

MEATH (4).

WESTMEATH (2).

LOUTH (5).

LONGFORD (1).

GALWAY (8).

Ballinasloe (Kilconnell)—*Record ceased.* |

MAYO (5).

Ballinrobe (Creagh)—*Observer moved.* | Ballinrobe (Cranmore).

SLIGO (5).

LEITRIM (2).

CAVAN (1).

FERMANAGH (2).

Enniskillen (Lisbellaw)—*Record ceased.*
,, (,,) *2nd g.*—*Record ceased.*

MONAGHAN (1).

ARMAGH (4).

DOWN (14).

| Newtownards.
| Holywood Waterworks.

ANTRIM (14).

Bushmills—*Record ceased.*

| Stonyford (Belfast Waterworks).
| Carrickfergus (North Woodburn).
| Broughshane (Quolie).

LONDONDERRY (9).

Dungiven—*Record ceased.*
Londonderry (ClooneyTerrace)—*Gauge moved.*

TYRONE (7).

Moy (Derrygally *2nd g.*)—*Record unreliable.* |

DONEGAL (8).

| Bloody Foreland (Tullaghobegly).

OBITUARY.

THE mortality has again been rather high. The total number of observers, including those laid aside by illness or age, can scarcely reach 3,000, yet we have 51 names in the following list—or 17 in the 1,000. It must, however, be remembered that many observers are, as has been pointed out in previous volumes, of very advanced age—*e.g.*, the last death that we have added to the list occurred at the age of 86.

Foremost in importance among our losses is that of Mr. G. Dines, one of the kindest men that ever lived, an accurate observer, and, as several papers in these volumes and in those of the *Roy. Meteor. Soc.* prove, a deep thinker. As regards length of unbroken record, few persons will surpass Mr. H. H. Watson, F.C.S., of The Folds, Bolton, whose record of 56 years is fortunately being continued by his son. Mr. Gunson's name stands for the long record kept by the Sheffield Water Works Company, at Redmires, because he was the engineer to the Company for many years and forwarded the returns, but we are not sure that the whole record was kept under his direction. We are glad to know that it is being continued by Mr. E. M. Eaton, C.E., the present engineer.

The names of G. Dines and W. Johnson are marked with the asterisk, denoting that they were among the 168 contributors to our first publication, *English Rainfall*, 1860. Year by year the survivors diminish, but very slowly. In 1883 not one died, in 1884 three, in 1885 also three, and in 1886 two. Out of the 168, 35 are, I believe, still with us, and 21 have sent in returns for 1886.

OBSERVERS DECEASED TO JULY, 1887.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records
Adams, W., Esq. C.E. — Tredegarville, Cardiff	C 1868 imp -70 T	2
Adams, W., Esq. C.E. — Crockherbtown, ,,	C 1871-79 imp T	8
Adams, W., Esq. C.E. — Park Place ,,	C 1879 imp -86 imp T	6
AingerRev. Dr., WhittonTower, Rothbury, Nthmbrld.	C 1873 imp -85	13
Barbour, G. F., Esq., Bonskeid, Pitlochrie	1871-79	9
Beverley, Rev. Dr. — North Broadford	C 1863-64 imp -66 imp	1
Beverley, Rev. Dr. — Grammar School, Aberdeen	C 1864-79 T	16
Beverley, Rev. Dr. — Ashley Place, Cuparstone	C 1864 imp 66 imp T	1
Beverley, Rev. Dr. — Skene Street, Aberdeen	C 1866 imp -79 T	13
Beverley, Rev. Dr. — Seafield Cottage, Rubislaw	C 1870 imp -73 imp T	2
Beverley, Rev. Dr. — Cuparstone Rd., Hammerfield	C 1873 imp -76 imp T	2
Beverley, Rev. Dr. — Bonaccord Street, Aberdeen.	C 1876 imp -79 T	3
Bircham, W. D., Esq., Hackford, Reepham, Norfolk	C 1873-83 imp T	10
Birkett, Mr. — Seathwaite	1871-78 C	8
Birkett, Mr. — Castle Lodge, Rosthwaite, Keswick	C1879 imp-82imp-86C	7
Bourchier, Major, Felthorpe, Norwich	1876-86 C	11
Caulfield, Dr., Royal Institution, Cork	1864-84	21
Chadburn, A. W., Esq., Brincliffe Rise, Sheffield	C 1872-86 C	15
Cherry, G. C., Esq., Denford Park, Hungerford	1874-86	13
Culley, H., Esq., Cossey Mills, Norwich	C 1858-86 imp C	28
Dart, Mr., Chewton Priory, Bath	1867-86 C	20
Davy, Lt.-Col., Rose Ash, South Molton, Devon	1870-86	17
Deane, W. H., Esq., C.E, Castlemorris, Tralee	C 1877 imp-86 T	9
*Dines, G., Esq. — St. Ann's Hill, Wandsworth	C 1858 imp -65	7
*Dines, G., Esq. — Windlesham, Bagshot	C 1864 imp -66 imp T	1
*Dines, G., Esq. — Pyports, Cobham	C 1866 imp -72 imp T	5
*Dines, G., Esq. — Ewell Road, Surbiton	C 1872 imp -76 imp T	3
*Dines, G., Esq. — Woodside, Hersham	C 1876-86	11
Dunlop, W. H., Esq., Annan Hill, Kilmarnock	C 1871-80 T	10
Elliot, Sir Walter, Bt., F.R.S., Wolfelee, Hawick.	1866, 68-86	20
Elliott, Miss, Kirndean, New Castleton, N.B	C 1864-85	22
Enniskillen, Rt. Hon. Earlof, FlorenceCrt., Enniskillen	1854, 56-86 C	32
Fielden, J., Esq. — Stansfield Hall, Todmorden	1864-72, 74-84 T	19
Fielden, J., Esq. — Nutfield Priory, Reigate	C 1873-86	14
Gardner, R., Esq., The Bulthy, Middletown	1885	1
Gibson, Miss, Hurstleigh, Blackwater, Hants	C 1875 imp -85 T	10
Grounds, A., Esq., March, Cambs	C 1878-84 T	7
Gunson, J., Esq. — Redmires, Sheffield	C 1836-86 C	51
Gunson, J., Esq. — Rivelin, Sheffield	C 1872-86 C	15
Gunson, J., Esq. — Crookes, Sheffield	C 1872-86 C	15
Hadden, Miss J. P., Guildown, Guildford	C 1870 imp -86	16
Haviland, Rev. Canon, Warbledon, Sussex	C 1871 imp -75 imp —78 imp -85	11
Hull, Rev. Canon, Eaglescliffe, Yarm	C 1866-80 T	15
Johnson, C. W., Esq. Waldronhurst, Croydon	1859-73 T	15
*Johnson, W., Esq. — Bicester	C 1853-60 imp T	7
*Johnson, W., Esq. — Banbury	C 1860 imp -66 T	6
Mann, T., Esq., Thelveton, Norfolk	C 1883-85	3
Massie, R., Esq, Pulford Hall, Chester	C 1867-86	20
Milbank, A. S., Esq., Barningham Park, Barnard Cas.	C 1871-79	9

OBSERVERS DECEASED TO JULY, 1887.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records.
Penny, Mr. W. D., The School House, Nairn	1870-72, 77-86	13
Peter, Rev. J., Old Deer Manse, Aberdeen	C1863,64imp,66imp—78, 82 -84 T	11
Playfair, Rev. D., Abercorn, Linlithgow	C 1872 -79 T	8
Power, Rev. J., Altarnum, Launceston	1879 -86 C	8
Purdie, T. S., Esq.,Castle Cliffe, St. Andrews	1876 -81	6
Rammell, G., Esq., Old Tree, Hoath, Canterbury	1879 -86	8
Russell, C. P., Esq., Royal Literary Institute, Bath	C 1865 imp -86 C	21
Sherbrooke, H., Esq., Oxton, Southwell	C 1862 -86	25
Sidgwick, Rev. R. H., Skipton	C 1863 -67 T	5
Stent, W. J. Esq., Downside, Warminster	1870 -81 imp -86	16
Tarbotton,M.O.,Esq., C.E. Arboretum,Nottingham	C 1867 -73 imp T	6
Tarbotton,M.O.,Esq., C.E. The Park, Nottingham.	C 1873 imp -86	13
Todd, Rev. J. U., The Priory, Dunster, Somerset	1874 -82 imp T	8
Twamley, C., Esq., Ryton-on-Dunsmore, Coventry	1878-86	9
Watson, H. H., Esq., The Folds, Bolton-le-Moors	C 1831 -86 C	56
Weston, Mr. W., Eastwood Colliery, Notts	C 1880 -86 C	7
Williams, Mr., R. O., National School, Dolgelly	C 1865 -86 imp	21
Wilson, C., Esq., Shotley Park, Shotley Bridge	1883, 84 imp T	1
Wise, J. F. N., Esq., Rostellan Castle, Cork	1880 -85 T	6

RAINFALL AND METEOROLOGY

OF

1886.

SYMBOLS EMPLOYED.

H.—Hail.
H.R.S.—Highland Railway Station
L.—Lightning.
R.—Rain or Rainfall.
S.—Snow.
T.—Thunder.
TS.—Thunderstorm.
TSS.—Thunderstorms.

ON THE METEOROLOGY OF 1886.

WITH NOTES OF SOME OF THE PRINCIPAL PHENOMENA.

[These Notes should be read in conjunction with those on Heavy Rains in 1886.]

JANUARY.

1st.—*Newcastle West* (XX). H and sleet.

2nd.—*Broxbourne* (III). Heavy S.W. gale at night.

3rd.—*Diss* (IV). S.W. gale in evening.—*Torquay, Babbacombe* (V). W.S.W. gale.—*Derby, Elvaston* (VII). S.W. gale.—*Barnard Castle, Whorlton* (X). W. gale.—*Elterwater, Woodlands* (X). R nearly all day and night, 2·10 in.—*Shap, Copy Hill* (X). Dreadful gale all day, with heavy R., 1·83 in.—*Llanfrechfa Grange* (XI). Thick fog till noon.—*Loch Shiel, Glenaladale* (XVIII). Very stormy from N.W.—*Broadford, Hurdlestown* (XX). Heavy R all day, 1·02 in.

4th.—*Torquay, Babbacombe* (V). W.S.W. gale.—*Melrose, Abbey Gate* (XII). Hills white with S.—*Middleton, Gorebridge* (XIII). S 3 in. deep.—*Stronvar* (XVI). S 3 in. deep.—*Loch Shiel, Glenaladale* (XVIII). Stormy from N.W.; H.—*Broadford, Hurdlestown* (XX). Much R, S and sleet, with high wind.—*Newtownards* (XXIII). Heavy storm of S.

5th.—*Tenterden* (II). Six inches of S.—*Wrotham* (II). S more than 7 in. deep at 9 a.m.; afterwards more fell, but it melted as it fell.—*Wantage, East Hendred* (II). Heavy S at night, about 8 in. deep, and yielding 1·01 in.—*Derby, Elvaston* (VII). S.W. gale.—*Macclesfield* (VIII). S storm at 3.30 p.m.—*Scarborough* (IX). S and H.—*Builth, Llanwrtyd Wells* (XI). H and heavy S.—*Builth, Abergwessin* (XI). H, S and sleet.—*Broadford, Hurdlestown* (XX). Hills white with S.

6th.—*London, Lansdowne Crescent* (I). 8½ in. of S in about 7 hours.—*London, Camden Road* (I). 9 in. of S in 7 hours before noon, doing much damage.—*Muswell Hill* (I). Heavy S, fully a foot deep.—*Elleray, Etchingham Park* (I). S 10 in. deep at 5 p.m.—*Pinner Hill* (I). S a foot deep.—*Dorking, Abinger* (II). Heavy S.—*Canterbury, Harbledown* (II). 6 in. of S.—*St. Lawrence* (II). S storm, and sudden change of wind from W. to N.E. at 11 a.m.—*Broxbourne* (III). S all day, 1 ft. deep.—*Winslow, Addington* (III). S 6 in. deep.—*Torquay, Babbacombe* (V). N.E. gale.—*Gloucester, Maisemore Lock* (VI). S, frost and fog.—*Cheltenham* (VI). Heavy S.—*Ross, The Graig* (VI). S 8 in.

deep.—*Llanfrechfa Grange* (XI). S 2 in. deep.—*Llechryd, Castle Malgwyn* (XI). Severe frost.—*Llanstephan* (XI). S 6 in. deep.

7th.—*London, Lansdowne Crescent* (I). Min. temp. 18°·2, the lowest since January, 1881.—*Wallington* (II). Severe frost; min. in shade 11°·3.—*Calne, Compton Bassett* (V). Hard frost.—*Gloucester, Llanthony Lock* (VI). Fog.—*Ross, The Graig* (VI). Intense frost; temp. in shade at 9.30 a.m., 9°·0.—*Shap, Copy Hill* (X). Strong gale and heavy S.—*Builth, Llanwrtyd Wells* (XI). Hard frost, H, R and S at night.—*Builth, Abergwessin* (XI). Cold and stormy. with H, S and sleet.—*Dumfries, Crichton Inst.* (XII). Stormy, with S and sleet.—*Melrose* (XII). Gale and drifting S.—*Stronvar* (XVI). S 5 in. deep.—*Loch Shiel, Glenaladale* (XVIII). Very stormy from N.W.—*Watten H.R.S.* (XIX). Storm of wind, R, S and sleet.—*Clifden, Kylemore* (XXII). Westerly gale.—*Ramelton, Killygarvan* (XXIII). S.W. gale at night, with S.

7th and 8th.—*Winslow, Addington* (III). On 7th the shade temp. fell rapidly, till at 8 p.m. it was 8°; at 7 a.m. on 8th it had risen to 33°.—*Drumnadrochit* (XVIII). Severe gale, with S and deep drifts, in which a carpenter of the neighbourhood lost his way and perished.

8th.—*Dorking, Abinger* (II). Intense frost, temp. 7°.—*Northampton, Sedgebrooke* (III). Skating.—*Llechryd, Castle Malgwyn* (XI). H and sleet.—*Builth, Llanwrtyd Wells* (XI). H, R and S.—*Douglas, Victoria Road* (XI). N. gale and S.—*Dalnaspidal H.R.S.* (XVI). Gale and S.—*Scourie* (XIX). Terrific gale and tidal wave, doing great damage along the coast.—*Watten H.R.S.* (XIX). N.W. gale, S and drifts.

9th.—*Torquay, Babbacombe* (V). Aurora.—*Cheltenham* (VI). Skating all day.—*Newark, East Stoke* (VII). S.—*Melrose* (XII). Aurora.—*St. Andrews* (XVI). Brilliant aurora.—*Dalnaspidal H.R.S.* (XVI). Aurora.

10th.—*Torquay, Babbacombe* (V). Fog.—*Dalnaspidal H.R.S.* (XVI). Fog.

11th.—*Reigate, Holmfels* (II). Dense fog.—*Winslow, Addington* (III). Very foggy.—*Macclesfield* (VIII). Fog.

12th.—*Burton-on-Trent* (VI.) W. gale; T.—*Macclesfield* (VIII). Roads coated with ice.—*Shap, Copy Hill* (X). R, H, sleet and S.—*Douglas, Victoria Road* (XI). N. gale, pressure falling 8-tenths of an inch.—*Watten H.R.S.* (XIX). W. gale at night.—*Newcastle West* (XX). Violent N.W. storm at night; H.—*Ramelton, Killygarvan* (XXIII). Heavy N.W. gale, and R at night.

13th.—*London, Lansdowne Crescent* (I). Storm of R and H at 10.35 a.m.—*Elleray, Etchingham Park* (I). A very severe squall of R and H.

between 10.35 a.m. and 11 a.m., the wind veering suddenly from S.W. to N.W.—*Littlehampton* (II). Great squall of R and H.—*St. Lawrence* (II). Sharp squall from N.W. at 10.50 a.m.—*Broxbourne* (III). Strong N.W. gale.—*Buntingford, Throcking Rectory* (III). Strong squall from N.W.—*Winslow, Addington* (III). T; great flood.—*Torquay, Babbacombe* (V). N.W. gale; H.—*Cirencester, Further Barton* (VI). A gale, amounting to a hurricane for a few minutes, at 9.30 a.m., during which several trees fell.—*Gloucester, Maisemore Lock* (VI). Hurricane from N.—*Ross, The Graig* (VI). Hurricane squall at 8.55 a.m.—*Ketton Hall* [*Stamford*] (VII). Strong gale at 10 a.m.—*Derby, Elvaston* (VII). W. to N. gale.—*Llanfrechfa Grange* (XI). Short violent storms of wind.—*Builth, Llanwrtyd Wells* (XI). H, R and S.—*Douglas, Victoria Road* (XI). N. gale and H.—*Ramelton, Killygarvan* (XXIII). Heavy N.N.W. gale. *

14th.—*Ross, The Graig* (VI). River Wye in flood, 10 ft. above summer level.—*Melrose* (XII). S.W. gale.—*Loch Shiel, Glenaladale* (XVIII). Very stormy from N.W.—*Newcastle West* (XX). Stormy from N.W. with H, S, and sleet.

15th,—*Ketton Hall* [*Stamford*] (VII). Strong gale with R at 3 p.m. *Shap, Copy Hill* (X). Storm at night.—*Llanfrechfa Grange* (XI). W. and S.W. gale.—*Dalnaspidal, H.R.S.* (XVI). T, sleet, and S.—*Nenagh, Castle Lough* (XX). A short sharp TS, with high wind and sleet.—*Miltown Malbay* (XX). Stormy from W. to N.W., with T,L, and H.

15th and 16th.—*Watten, H.R.S.* (XIX). Stormy with S showers.

16th.—*London, Lansdowne Crescent* (I). Violent storm of R and H at 10.30 p.m., lasting about 45 minutes.—*St. Lawrence* (II). H squall, L over the sea.—*Emsworth, Redlands* (II). S.W. gale.—*Broxbourne* (III). Hurricane at night.—*Salisbury, Alderbury* (V). T at 9 p.m.—*Torquay, Babbacombe* (V). TS; S.W. gale; H.—*Ashburton, Druid* (V). TS.—*Teignmouth* (V). H.—*Langtree, Beare House* (V). Severe TS.—*St. John's* [*Devonport*] (V). T at 8 p.m.—*Temple Combe, Stowell Rectory* (V). H, R, and distant T at night.—*Wells, Westbury* (V). Severe TS about 8 p.m.—*Lancaster* (VIII). T and L.—*Elterwater, Woodlands* (X). T and L.—*Shap, Copy Hill* (X). TS at night.—*Llechryd, Castle Malgwyn* (XI). Stormy with T and L.—*Builth, Llanwrtyd Wells* (XI). H, R, and S.—*Stronvar* (XVI). S $7\frac{1}{2}$ in. deep.—*Derrycastle* [*Killaloe*] (XX). T and L from 1 till 2.30 p.m.—*Kilkishen* (XX). T and L.—*Broadford,*

---

* For details of this squall see paper by R. H. SCOTT, F.R.S., *Quar. Jour. Roy. Met. Soc.* Vol. xii., p. 292.

Hurdlestown (XX). T, L, R and S all day and heavy S at night.—*Galway, Queen's College* (XXII). Frost, S, sleet and R alternately, with heavy squall and T.—*Ballinasloe, Kilconnell* (XXII). S, H, sleet, T and L.—*Clifden, Kylemore* (XXII). T, L and S.

17th.—*Lower Walmer* (II). H storms.—*Ashburton, Druid* (V). Heavy H showers.—*Scarborough* (IX). S 5 in. deep.—*Thornley Vicarage* (X). S.—*Shap, Copy Hill* (X). Heavy S.—*Colmonell* (XIV). S an inch and a half deep.—*Derrycastle* [*Killaloe*] (XX). Very heavy S, yielding 1·06 in.—*Kilkishen* (XX). T and L.—*Broadford, Hurdleston* (XX). S all day.—*Cushendun* (XXIII). S 3 in. deep.

18th.—*Dorking, Abinger* (II). Severe frost; temp. 13°.—*Oxford* (III). Thick fog.—*St. John's*, [*Devonport*] (V). H, S, and sleet.—*Kilkishen* (XX). S.

18th–20th.—*Ennis* (XX). S and H daily.

19th.—*Reigate, Holmfels* (II). Dense fog.—*St. Lawrence* (II). Grass temp. 16°.—*Torquay, Babbacombe* (V).—TS, H.—*Hatherleigh, Winsford* (V). S 9 in. deep.—*Nottingham, Strelley* (VII). Thick fog in afternoon.—*Clarbeston, Penty Parc* (XI). S 6 in. deep.—*Douglas, Victoria Road* (XI). Heavy S storm; temp. 24°.—*Coupar Angus Station* (XVI). Temp. fell to 1°.—*Derrycastle* [*Killaloe*] (XX). Fog.

20th.—*Wrotham* (II). S 3 in. deep.—*Torquay, Babbacombe* (V). E. gale.—*Elterwater, Woodlands* (X). Skating on Elterwater.—*Douglas, Victoria Road* (XI). N.W. gale and bitterly cold.—*Miltown Malbay* (XX). In the evening with a clear sky, long-continued peals of T could be heard occasionally away to the N.; this was a prelude to sharp frost.

21st.—*Littlehampton* (II). S, H, and R.—*Torquay, Babbacombe* (V). Solar halo.

22nd.—*Middleton, Gorebridge* (XIII). S 4½ in. deep.

23rd.—*Wrotham* (II). S over 6 in. deep on the ground.—*Wantage, East Hendred* (II). Heavy fall of S at night.—*Wells, Westbury* (V). S about 2 in. deep.—*Scarborough* (IX). S and H.—*Shap, Copy Hill* (X). A great S storm.—*Chepstow, Shirenewton Hall* (XI). 2 in. of S.—*Melrose* (XII). T and L at 9.30 p.m.—*Stronvar* (XVI). S 9 in. deep.—*Coupar Angus Station* (XVI). Heavy S.

24th.—*Newton, Oystermouth* (XI). R, sleet and S, 1·33 in.

25th.—*Pinner Hill* (I). Fog.—*Dorking, Abinger* (II). Thick fog.—*Reigate, Holmfels* (II). Dense fog.—*Emsworth, Redlands* (II). Sleet, R and T.—*Winslow, Addington* (III). S 6 in. deep.—*Torquay, Babbacombe* (V). Heavy S.—*Ketton Hall* [*Stamford*] (VII). S on ground

6 in. deep.—*Shap, Copy Hill* (X). Gale, with S showers.—*Douglas, Victoria Road* (XI). Heavy S storm.—*Stronvar* (XVI). Gale and S.—*Derrycastle* [*Killaloe*] (XX). Heavy S, yielding ·72 in.—*Nenagh, Castle Lough* (XX). S.

26th.—*Pinner Hill* (I). Fog.—*Littlehampton* (II). L at night.—*Wantage, East Hendred* (II). L.—*Torquay, Babbacombe* (V). L and H.—*Kilkishen* (XX). S.

27th.—*Torquay, Babbacombe* (V). Fog.—*Ketton Hall* [*Stamford*] (VII). Thick fog all day.—*Shap, Copy Hill* (X). Heavy S.—*Ennis* (XX). S and H.—*Dalnaspidal, H.R.S.* (XVI). Fog and S.

28th.—*Oxford* (III). Thick fog.—*Rendlesham* (IV). Thick fog.—*Ketton Hall* [*Stamford*] (VII). Thick fog in morning.—*Ramelton, Killygarvan* (XXIII). S. by E. gale at night.

29th.—*Pinner Hill* (I). S and H.—*Emsworth, Redlands* (II). S.E. gale.—*Shap, Copy Hill* (X). R, H, sleet and S.—*Dalnaspidal, H.R.S.* (XVI). S; aurora.—*Miltown Malbay* (XX). Squally, T, L, and H.

30th.—*Torquay, Babbacombe* (V). S.S.W. gale. The phenomenon of what appears to have been ball lightning occurred about 2½ miles W.N.W. of this place between 7 and 8 p.m. The foreman at Barton Nursery (1 mile W.N.W. of this place) says his attention was called by a gardener to a ball of fire (about half the size of the full moon), which remained for several minutes about 30 ft. above the ground 1 mile to W. of the Nursery, moving slightly from one side to another occasionally, and finally disappearing without any sound being heard. A gardener working near Kingskerswell, says he was going downhill towards that place about 7 p.m., and saw a ball of fire about 1 ft. in diameter, which lighted up the road nearly as brilliantly as sunlight, gradually descending in a slanting direction nearly to the grass in a wet meadow, at the bottom of a short valley opening to the W., about ¾ mile S.S.E. of Kingskerswell Railway Station and 1½ miles W. of Barton Nursery. The fireball broke up into several smaller balls or sparks (which immediately disappeared) just before reaching the grass. He thinks the whole appearance lasted about three minutes, and is sure he heard no sound with it. The sky was partially cloudy, but no R fell at the time, and no ordinary L was seen that evening. There was no trace of any injury by fire or force in the field where the fireball fell.—*Builth, Llanwrtyd Wells* (XI). S all day.—*Dumfries, Crichton Institution* (XII). T, L, and H.—*Gorebridge, Middleton* (XIII). S 4 in. deep.—*Stronvar* (XVI). S 9 in. deep.—*Dalnaspidal, H.R.S.* (XVI). L; aurora.—*Newcastle West* (XX). Stormy from N.W., with H and

sleet.—*Kilkishen* (XX). T and L.—*Miltown Malbay* (XX). Squally from N.W., with L and H.

30th and 31st.—*Emsworth, Redlands* (II). Squally; W to N.W gales.

31st.—*London, Lansdowne Crescent* (I). R and H showers at 1 p.m. —*Broadbourne* (III). Heavy S.W. gale all day.—*Rendlesham* (IV). Heavy storms S.W. to W.—*Torquay, Babbacombe* (V). W.N.W. gale. —*Ashburton, Druid* (V). Heavy R and H.—*Nottingham, Beeston Fields* (VII). S storm; very dark at 3 p.m.—*Newark, East Stoke* (VII). S.— *Macclesfield* (VIII). S storm with T.—*Broughton-in-Furness* (VIII). S and H.—*Shap, Copy Hill* (X). Heavy S.—*Colmonell* (XIV). S 3 in. deep.—*Loch Shiel, Glenaladale* (XVIII). S 8 in. deep.—*Miltown Malbay* (XX). H and S squalls.—*Galway, Queen's College* (XXII). Heavy squalls with R and sleet.—*Cushendun* (XXIII). S more than 3 in. deep.

FEBRUARY.

1st.—*Diss* (IV). Slight H in morning; W. gale in afternoon.— *Torquay, Babbacombe* (V). H.—*Ashburton, Druid* (V). H.—*Newark, East Stoke* (VII). S.—*Meltham, Harewood Lodge* (IX). TS at 2.30 a.m. *Elterwater, Woodlands* (X). H and sleet, with T and L at times.— *Douglas, Victoria Road* (XI). Hills covered with S.—*Dalnaspidal, H.R.S.* (XVI). T.—*Newcastle West* (XX). W.N.W. gale.

2nd.—*Finchley, Etchingham Park* (I). S.—*Builth, Llanwrtyd Wells* (XI). H.

3rd.—*Keston Tower* (II). S.—*South Uist, Ardkenneth* (XVIII). Aurora.

3rd—5th.—*Newcastle West* (XX). Frost with fogs.

4th.—*Reigate, Holmfels* (II). Dense fog.—*Rendlesham* (IV). Frost and H storms.—*Inverness H.R.S.* (XVIII). Four inches of S.

5th.—*Douglas, Victoria Road* (XI). Severe frost; S at night.— *Balquhidder, Stronvar* (XVI). S 2 in. deep.—*Clifden, Kylemore* (XXII). Gale and R all night.

6th.—*Reigate, Holmfels* (II). Dense fog.—*Rendlesham* (IV). H storms.—*Ashburton, Druid* (V). S on moor.—*Llechryd, Castle Malgwyn* (XI). S.—*Balquhidder, Stronvar* (XVI). S 3 in. deep.—*Watten H.R.S.* (XIX). S.E. gale at night.

7th.—*Shap, Copy Hill* (X). Dense fog.—*Dumfries, Crichton Inst.* (XII). S $3\frac{1}{2}$ in. deep.—*Newcastle West* (XX). A fine spring-like day, lark and thrush singing.

8th.—*Dalnaspidal, H.R.S.* (XVI). Fog.

8th—10th.—*Broxbourne* (III). Dense fog.

8th—11th.—*Elterwater, Woodlands* (X). Dense fog daily.

9th.—*Melton Mowbray, Coston* (VII). Thick fog about 4 p.m.—*Nottingham, Strelley* (VII). Fog all day.—*Shap, Copy Hill* (X). Heavy fog all day.

9th and 10th.—*Oxford* (III). Thick fog.

9th—11th.—*Burton, Hoar Cross* (VI). Fog.

10th.—*Winslow, Addington* (III). Dense fog; min. temp. 19°.—*Diss* (IV). Fog.—*Ross, The Graig* (VI). Dense fog.

11th.—*Reigate, Holmfels* (II). Dense fog.—*Torquay, Babbacombe* (V). Fog.—*Ashburton, Druid* (V). Dense fog.—*Worcester, Diglis Lock* (VI). Fog.—*Melrose* (XII). Lunar corona at 9 p.m.

12th.—*Pinner Hill* (I). Fog.—*Reigate, Holmfels* (II). Dense fog.—*Torquay, Babbacombe* (V). Fog.—*Melrose* (XII). Lunar corona at 6 p.m.—*Clifden, Kylemore* (XXII). Heavy R all night, 1·35 in.

13th.—*Llechryd, Castle Malgwyn* (XI). S at night,—*Abergwessin* (XI). R, H, S and frost.—*Keith H.R.S.* (XVII). S 2 in. deep.—*Broadford, Hurdlestown* (XX). S on hills.

13th and 14th.—*Torquay, Babbacombe* (V). Southerly gale.

14th.—*Broxbourne* (III). Dense fog.—*Dalnaspidal H.R.S.* (XVI). S yielding ·20 in.—*Forres H.R.S.* (XVII). S 4 in. deep.—*South Uist, Ardkenneth* (XVIII). S on hills.—*Tralee, Castlemorris* (XX). Fog.—*Ballinasloe, Kilconnell* (XXII). S and H.—*Londonderry, Knockan* (XXIII). Mountains very white.

15th.—*Broxbourne* (III). Dense fog.—*Cleobury Mortimer, Neen Savage* (VI). S.—*Llechryd, Castle Malgwyn* (XI). S.

16th.—*Melrose* (XII). Fog.

17th.—*Ashburton, Druid* (V). Dense fog.—*Melrose* (XII). L at 6.30 p.m.

18th.—*Wakefield, Stanley Vicarage* (IX). S.—*Thornley Vicarage* (X). S.—*Shap, Copy Hill* (X). H and S.

19th.—*Winslow, Addington* (III). Max. temp. 31°.—*Ross, The Graig* (VI). Dense fog in morning.—*Gorebridge, Middleton* (XIII). S 3 in. deep.—*Balquhidder, Stronvar* (XVI). S 3 in. deep.—*Keith H.R.S* (XVII). S 1 in. deep.

20th.—*Shap, Copy Hill* (X). A heavy fog.

20th—22nd.—*Elterwater, Woodlands* (X). S each day.

21st.—*Dalnaspidal H.R.S.* (XVI). Fog.

21st—28th.—*Thornley Vicarage* (X). S daily except on 24th.

22nd.—*Southend* (IV). S.—*Cirencester, Further Barton* (VI). S.—*Dalnaspidal H.R.S.* (XVI). S; aurora.—*South Uist, Ardkenneth* (XVIII). S at night.

22nd and 23rd.—*Nenagh, Castle Lough* (XX). Much S.

23rd.—*Rendlesham* (IV). S.—*Douglas, Victoria Road* (XI). S.—*Broadford, Hurdlestown* (XX). S and R all day.—*Miltown Malbay* (XX). S and sleet.

25th.—*Wantage, East Hendred* (II). 5 in. of S on ground.—*Dalnaspidal H.R.S.* (XVI). T and S.—*Watten H.R.S.* (XIX). Foggy; S 2 in. deep.

25th and 26th.—*Douglas, Victoria Road* (XI). S.

26th.—*Keith H.R.S.* (XVII) S 1 in. deep.—*Ballinamore, Lauderdale* (XXII). S yielding ·35 in.

27th.—*Melton Mowbray, Coston* (VII). S at night.—*Llechryd, Castle Malgwyn* (XI). S.—*Melrose* (XII). S and H.—*Londonderry, Knockan* (XXIII). Country white.

27th and 28th.—*Langtree* (V). Very cold, with S yielding ·55 in.

28th.—*Finchley, Etchingham Park* (I). S.—*Dorking, Abinger* (II). S.—*Emsworth, Redlands* (II). S, 2 in. deep by March 1st.—*Oxford* (III). S at night.—*Salisbury, Alderbury* (V). S on ground.—*Calne, Compton Bassett* (V). S 4 in. deep, yielding ·30 in.—*Ashburton, Druid* (V). Heavy S at night.—*St. John's* [*Devonport*] (V). S.E. gale.—*Wells, Westbury* (V).. S, yielding ·16 in.—*Clifton* (VI). Heavy S at night, yielding ·41 in.—*Cirencester, Further Barton* (VI). Heavy S.—*Cheltenham* (VI). Heavy S, commencing about 4 a.m. on March 1st, with much wind, causing deep drifts on the hills, though not much fell on low lands.—*Ross, The Graig* (VI). S 7½ in. deep.—*Worcester, Diglis Lock* (VI). S yielding ·51 in.—*Melton Mowbray, Coston* (VII). S at night.—*Baldersby* (IX). S 6 in. deep, and strong E. wind.—*Llanfrechfa Grange* (XI). A heavy fall of S about midnight, 6½ in. deep, yielding ·54 in.—*Llandovery* (XI). The heaviest S storm for years, yielding ·26 in.—*Llechryd, Castle Malgwyn* (XI). Heavy S at night, yielding ·27 in.—*Corwen, Rhug* (XI). Heavy S, yielding ·56 in.—*Douglas, Victoria Road* (XI). S.—*Glendrishaig* (XIV). S showers.—*Watten H.R.S.* (XIX). S at night, 2 to 3 in. deep.—*Glenville* (XX). Heavy S, yielding ·53 in.—*Tipperary, Henry Street* (XX). S at night, yielding ·37 in.—*Nenagh, Castle Lough* (XX). S.—*Newcastle West* (XX). Sleet and S, yielding ·60 in.—*Broadford, Hurdlestown* (XX). Much S at night.—*Miltown Malbay* (XX). Fierce storm of S and sleet.—*Mullingar, Belvedere* (XXI). S ·32 in.—*Clifden, Kylemore*

(XXII). S and frost.—*Warrenpoint* (XXIII). S yielding ·43 in.—*Newtownards* (XXIII). S storm, yielding ·30 in.—*Belfast, New Barnsley* (XXIII). Heavy S at night, yielding ·27 in.

MARCH.

1st.—*London, Lansdowne Crescent* (I). S all morning, and H later.—*Muswell Hill* (I). Heavy S yielding ·44 in.—*Pinner Hill* (I). S 3 in. deep.—*Dorking, Abinger* (II). S and R all day.—*Wallington* (II). Frost, S, H and R.—*St. Lawrence* (II). Gale and sleet.—*Northampton, Sedgebrooke* (III). S all day.—*Rendlesham* (IV). Half a gale from E.S.E. with S and R.—*Torquay, Babbacombe* (V). Fog.—*Teignmouth, Woodway* (V). Thick mist, trees 55 yards to S. indistinct.—*Cheltenham* (VI). Very stormy with S.—*Wem, Sansaw Hall* (VI). S, which remained on the ground till 20th.—*Burton-on-Trent* (VI). 4 in. of S.—*Melton Mowbray, Coston* (VII). S all day from 8 a.m. to 6 p.m., forming deep drifts.—*Ketton Hall* [*Stamford*] (VII). S all day, 4 in. deep at 6 p.m.—*Spilsby, Partney* (VII). S yielding ·71 in.—*Horncastle, Bucknall* (VII). S 5 in. deep.—*Nottingham, Strelley* (VII). S all day, 5 in. deep.—*Derby, Elvaston* (VII). A great S storm with deep drifts.—*Blackpool, South Shore* (VIII). S 6 in. deep.—*Lancaster* (VIII). Deep S drifts, delaying mails.—*Hest Bank* (VIII). Severest S storm remembered, with drifts to 7 ft. or 8 ft. deep.—*Broughton-in-Furness* (VIII). Severe S storm causing deep drifts.—*Wakefield, Stanley Vicarage* (IX). Heavy fall of S.—*Shipley, Esholt* (IX). Heavy S yielding 1·48 in.—*York, Cherry Hill* (IX). Heavy S, yielding ·85 in.—*Wetwang* (IX). Severe S storm and S.E. gale; S lay deep until 19th.—*Scarborough* (IX). Very stormy with drifting S.—*Ingleby Manor* (IX). Severe S storm.—*East Layton* [*Darlington*] (IX). A very severe S storm lasting from early morning till midnight, yielding 1·00 in., and accompanied by a severe N. gale.—*Darlington, Cleveland Parade* (X). 8 in. of S.—*Elterwater, Woodlands* (X). Heavy S, rendering the roads impassable.—*Shap, Copy Hill* (X). Heavy S and gale.—*Chepstow, Shirenewton Hall* (XI). 7 in. of S.—*Carno, Tybrith* (XI). Deep S.—*Douglas, Victoria Road* (XI). Very heavy S, with S.E. gale, drifts several feet deep.—*Garliestown, Galloway House* (XII). Heavy fall of S, nearly 10 in. deep.—*Ballantrae, Glendrishaig* (XIV). Severe S storm all day with E. wind.—*Colmonell* (XIV). S an inch deep.—*Balquhidder, Stronvar* (XVI). S 2 in. deep, and drifts.—*Gorey,*

Courtown (XXI). Heavy S.—*Newtownards* (XXIII). Heavy S, yielding 1·00 in.—*Ramelton, Killygarvan* (XXIII). Severe S storm.

1st and 2nd.—*Newark, East Stoke* (VII). S.—*Macclesfield* (VIII). E. gales and S storms.—*Thelwall* (VIII). About 3 in. of S on the ground. —*Harrogate* (IX). Continuous S from 7 a.m. on March, 1 to 7 p.m. on 2nd.—*Baldersby* (IX). S yielding ·79 in. for the two days.—*Aysgarth Vicarage* (IX). Great S storm.—*Barnard Castle, Whorlton* (X). Heavy S.—*Thornley Vicarage* (X). S.—*Rothbury, Cragside* (X). Severe S storm, roads blocked for miles, trains snowed up, no letters or papers reached the village for a week.—*Pawston* [*Coldstream*] (X). An unprecedentedly severe S storm, blocking roads, railways, &c.—*Gorebridge, Middleton* (XIII). Great S storm; S 12 in. to 15 in. deep, with much drift.—*Londonderry, Knockan* (XXIII). Heavy S, yielding ·34 in.—*Buncrana* (XXIII). Heavy S, yielding ·75 in.

1st—3rd.—*Keswick, Shu-le-Crow* (X). Heavy S.

1st—4th.—*Kinross, Turfhills* (XVI). S storm, blocking roads and railways.

1st—6th.—*Crewkerne, Bincombe House* (V). Heavy S storms, with sharp frost.

2nd.—*Tenterden* (II). High wind.—*Dumfries, Crichton Institution* (XII). S 7 in. deep.—*Melrose* (XII). S 13½ in. deep, and much drifted. —*Ballantrae, Glendrishaig* (XIV). More S, and much drifting.—*Strathmiglo, Loden Urquhart* (XVI). Tremendous S drift from N.E.; the worst since March 4th and 5th, 1881.—*Keith, H.R.S.* (XVII). S 2 in. deep.—*Rathfryland* (XXIII). S on ground 4 ft. deep.

3rd.—*Winslow, Addington* (III). Snowing all day.—*Nottingham, Beeston Fields* (VII). Max. temp. in sun 106°; S on ground.—*Sunderland, West Hendon House* (X). S lying 14 in. deep.—*St. Andrews* (XVI). S 6 in. deep.

4th.—*Ashburton, Druid* (V). Thick fog in the valleys.

5th.—*St. Lawrence* (II). S 4 in. deep.—*Bournemouth, Tregew* (II). S 4 in. deep.—*Salisbury, Alderbury* (V). S.—*Torquay, Babbacombe* (V). E.N.E. gale and heavy S, 1½ in. deep.—*Ashburton, Druid* (V). Heavy S (·36 in.) which lay on the ground for days.—*Newark, East Stoke* (VII). S.—*Thornley Vicarage* (X). S.—*Keith, H.R.S.* (XVII). S 4 in. deep.

5th—18th.—*Cheltenham* (VI). Skating every day.

6th.—*Horncastle, Bucknall* (VII). S 2 in. deep.—*Watten, H.R.S.* (XIX). Stormy with S and drifts.

7th.—*Winslow, Addington* (III). Intense frost.—*Burton-on-Trent*

(VI). Sharp frost.—*Nottingham, Beeston Fields* (VII). Grass min. 9°. —*Derby, Elvaston* (VII). Intense frost.—*Watten, H.R.S.* (XIX). Southerly gale at night.

7th—10th.—*Ulceby, Limber Grange* (VII). Severe frosts.

8th.—*Winslow, Addington* (III). Lake bearing, brook covered with ice.—*Inverness, H.R.S.* (XVIII). S 4 in. deep.—*Broadford, Hurdlestown* (XX). S.E. gale.

9th—*Torquay, Babbacombe* (V). E.S.E. gale; solar halo.—*Shap, Copy Hill* (X). Strong gale and hard frost.—*Tralee, Castlemorris* (XX). S.S.E. gale.—*Nenagh, Castle Lough* (XX). E.S.E. gale.—*Newcastle West* (XX). Violent storm.—*Galway, Queen's College* (XXII). Wind force 9.

9th—15th.—*Elterwater, Woodlands* (X). Skating on Rydal Water daily, several hundreds being on the ice on 12th.

10th.—*Wantage, East Hendred* (II). Ground frozen 5 in. deep.—*Newark, East Stoke* (VII). S.—*Lancaster* (VIII). Skating in Williamson Park.—*Miltown Malbay* (XX). Heavy S.S.W. gale.

12th.—*Aysgarth Vicarage* (IX). Very severe S storm; the walls on Penhill were covered, and many sheep were lost.

12th—15th.—*Middleton-in-Chirbury* (VI). Skating on a pool which only bears in hard winters, and, except on one day in December, 1882, had not borne since January, 1881.

14th.—*Inverness, H.R.S.* (XVIII). S 4 in. deep.—*Broadford, Hurdlestown* (XX). S.E. gale with R and S.

14th—17th.—*Thornley Vicarage* (X). S daily.

15th.—*Nottingham, Strelley* (VII). $2\frac{1}{2}$ in. of S.—*Gorebridge, Middleton* (XIII). S 5 in. deep.—*Broadford, Hurdlestown* (XX). S gale with R, sleet and S.—*Miltown Malbay* (XX). Southerly gale.

15th and 16th.—*Coventry, Coundon* (VI). S.

15th—20th.—*Ulceby, Limber Grange* (VII). S on ground.

16th.—*Melton Mowbray, Coston* (VII). S all day.—*Melrose* (XII). S 4 in. deep.—*Gorebridge, Middleton* (XIII). 6 in. of fresh S, with great drifts and roads blocked.—*Balquhidder, Stronvar* (XVI). S $2\frac{1}{2}$ in. deep. —*Keith, H.R.S.* (XVII). S 2 in. deep.—*Inverness, H.R.S.* (XVIII). S 2 in. deep.

16th and 17th.—*Keswick, Shu-le-Crow* (X). S storm.

16th—18th.—*Londonderry, Knockan* (XXIII). S, yielding ·41 in.

17th.—*Winslow, Addington* (III). Intense frost.—*Southend* (IV). Dense fog.—*Melrose* (XII). S $5\frac{1}{2}$ in. deep, and drifting.—*Balquhidder, Stronvar* (XVI). S $2\frac{1}{2}$ in. deep, and high wind.—*Broadford, Hurdlestown*

(XX). S.E. gale.—*Miltown Malbay* (XX). S.E. gale.—*Lauderdale* (XXII). S.

18th.—*Douglas, Victoria Road* (XI). S.E. gale.—*Ballantrae, Glendrishaig* (XIV). Very stormy with S and R.—*Watten, H.R.S.* (XIX). E. gale.—*Ramelton, Killygarvan* (XXIII). S.E. gale all day.

19th.—*Shap, Copy Hill* (X). R, H and S.

20th.—*Reigate* (II). Fog.—*St. Lawrence* (II). Dense fog.—*Melrose* (XII). Tweed in flood.—*Clifden, Kylemore* (XXII). Strong W. gale.

22nd.—*Reigate* (II). Fog.—*Douglas, Victoria Road* (XI). Fog.

23rd.—*Clifden, Kylemore* (XXII). A strong S. gale.

26th.—*Wallington* (II). Gale. Estimated force at 9 p.m. 11.—*Southend* (IV). Gale.—*Diss* (IV). S.W. gale at night.—*Torquay, Babbacombe* (V). S.S.W. gale.—*Ashburton, Druid* (V). Heavy R (1·21 in.) and storm of wind from 1 p.m.—*Mansfield* (VII). High wind.—*Broughton-in-Furness* (VIII). Very heavy R, 2·10 in. in 12 hours.—*Elterwater, Woodlands* (X). R all day, 2·71 in.—*Llandovery* (XI). R, 2·15 in., the heaviest fall since 1878.—*Llechryd, Castle Malgwyn* (XI). Wet day and night, R 1·22 in.—*Douglas, Victoria Road* (XI).—S.W. gale and heavy R, 1·12 in.—*Derrycastle* [*Killaloe*] (XX). Heavy and continuous R (1·36 in.).—*Nenagh, Castle Lough* (XX). R, 1·16 in., the heaviest fall since August, 1883.—*Kilkishen* (XX). Heavy R, 1·12 in.

27th.—*Diss* (IV). Southerly gale all day.—*Torquay, Babbacombe* (V). S.W. gale.—*Douglas, Victoria Road* (XI). S S.W. gale.—*Melrose.* (XII). Tweed in flood; stormy.

27th and 28th.—*Neath, Glyncorrwg* (XI). R 5·57 in.

27th—31st.—*Emsworth, Redlands* (II). S.W. to S. gales, with H on 31st.

28th.—*Southend* (IV). Fog.

29th.—*Norwich, Essex Street* (IV). T.—*Torquay, Babbacombe* (V). S.W. gale.—*Ashburton, Druid* (V). H.—*Melton Mowbray, Coston* (VII). Very high wind; T about 1.30 p.m.—*Ketton Hall,* [*Stamford*] (VII). H; gale and heavy R at 7 p.m. *Nottingham, Beeston Fields* (VII). T, L, and H.—*Nottingham, Strelley* (VII). TS to S.E.—*Macclesfield* (VIII). S. gale.—*Llandovery* (XI). H.—*Derrycastle* [*Killaloe*] (XX). H and R.—*Newcastle West* (XX). Stormy with H.—*Miltown Malbay* (XX). Heavy N.W. gale.—*Ballinasloe, Kilconnell* (XXII). H, S and sleet.—*Clifden, Kylemore* (XXII). Gale from W.

29th and 30th.—*Crewkerne, Bincombe House* (V). TSS with L at night.

29th—31st.—*Burton-on-Trent* (VI). S.W. gale with R, H and T.

30th.—*London, Lansdowne Crescent* (I). S.W. gale.—*Pinner Hill* (I). A gale.— *Wallington* (II). Gale, estimated wind force at 9 p.m. 10.—*Wantage, East Hendred* (II). Heavy gale.—*Southend* (IV). S.W. gale at night.—*Diss* (IV). Heavy S.W. gale with squalls of R.—*Torquay, Babbacombe* (V). S.W. gale.—*Ashburton, Druid* (V). Stormy all day, T and L at 5 p.m.—*Langtree* (V). Very rough, with S, R and cold winds.—*Temple Combe, Stowell Rectory* (V). TS and H at 6 p.m.—*Ross, The Graig* (VI). T, L and H, and 1·05 in. of R.—*Wem, Sansaw Hall* (VI). Strong S. to S.W. gale at night.—*Spilsby, Partney* (VII). Strong gale.—*Nottingham, Strelley* (VII). R in evening and night, 1·23 in.—*Mansfield* (VII). High wind.—*Wakefield, Stanley Vicarage* (IX). A gale.—*Bingfield House* (X). T; brilliant aurora.—*Elterwater* (X). Heavy S, sleet and R, 1·50 in.—*Shap, Copy Hill* (X). A fine display of aurora, followed by L and T.—*Llandovery* (XI). Heavy storm, day and night, R 1·35 in.—*Douglas, Victoria Road* (XI). S.S.W. gale.—*Melrose* (XII). Hills white; S.W. gale; fine aurora in evening.—*Ballantrae, Glendrishaig* (XIV). Heavy R, S and sleet.—*St. Andrews* (XVI). Aurora.—*Balquhidder, Stronvar* (XVI). Gale with H and sleet.—*Dalnaspidal, H.R.S.* (XVI). Gale, S and sleet.—*Drumnadrochit* (XVIII). A very fine display of aurora.—*Glenville* (XX). Fearful gale at night.—*Tralee, Castlemorris* (XX). Heavy R, 1·04 in., with S.W. gale.—*Nenagh, Castle Lough* (XX). S. to W. gale.—*Broadford, Hurdlestown* (XX). Severe N.W. gale at night.—*Miltown Malbay* (XX). Stormy from N.W., with H and sleet—*Ballinasloe, Kilconnell* (XXII). S and sleet.—*Ballinamore, Lawderdale* (XXII). Heavy N.W. gale.—*Cushendun* (XXIII). N.W. gale; very vivid aurora.—*Londonderry, Knockan* (XXIII). Country white with S.—*Ramelton, Killygarvan* (XXIII). Violent S.W. gale from noon to 6 p.m.—*Buncrana* (XXIII). Violent S.W. gale.

30th and 31st.—*Tenterden* (II). High wind.—*Cheltenham* (VI). Very stormy.—*Derby, Elvaston* (VII). Severe S.W. gales, with very heavy R, causing great floods.—*Newcastle West* (XX). L, sleet, H and R, with high wind.

31st.—*Pinner Hill* (I). H and T showers.—*Keston Tower* (II). Heavy S.W. gale all night.—*Northampton, Sedgebrooke* (III). Several heavy S storms.—*Southend* (IV). Gale.—*Diss* (IV). Heavy S.S.W. gale with H.—*Torquay, Babbacombe* (V). TS with the largest H ever seen here, stones half-an-inch in diameter; S.W. gale.—*Ashburton, Druid* (V). H, S and R.—*Teignmouth, Woodway* (V). S storm at 11.45 a.m.; TS 0.12 to 0.20 p.m.—*Truro, Porthgwidden* (V). Very severe

H storm with stones 3 in. in circumference.—*St. John's*, [*Devonport*] (V). Heavy TS and H 11.30 a.m. to noon.—*Temple Combe, Stowell Rectory* (V). TS at 0.30 p.m., with H stones as large as the largest peas.—*Melton Mowbray, Coston* (VII). S, R and H.—*Spilsby, Partney* (VII). Strong gale.—*Mansfield* (VII). T, H and high wind.—*Macclesfield* (VIII). S. and S.W. gale.—*Liverpool, Walton-on-the-Hill* (VIII). A storm of R, H, S and wind.—*Meltham, Harewood Lodge* (IX). T and L about 10 p.m.—*Wakefield, Stanley Vicarage* (IX). A gale.—*Shap, Copy Hill* (X). Strong gale all day.—*Llanfrechfa* (XI). T, L and H at 7 p.m.—*Llandovery* (XI). H.—*Douglas, Victoria Road* (XI). S.W. to W. gale.—*Scilly, Tresco Abbey* (XI). A very heavy and destructive H storm, with H stones 3 in. in circumference, about 10 a.m., lasting about 8 minutes, and very local.—*South Uist, Ardkenneth* (XVIII). H, T and L.—*Derrycastle* [*Killaloe*] (XX). H and sleet.—*Nenagh, Castle Lough* (XX). W. gale.—*Miltown Malbay* (XX). Squally from N.W. with S and H.—*Galway, Queen's College* (XXII). Wind force 10 at night, with heavy showers of S.—*Kilconnell* (XXII). S and H.

APRIL.

1st.—*Shap, Copy Hill* (X). Strong gale all day.—*Douglas, Victoria Road* (XI). S.W. gale.—*Melrose, Abbey Gate* (XII). S; Eildons white.—*Balquhidder, Stronvar* (XVI). S and sleet.—*Drumnadrochit* (XVIII). W. gale.—*Nenagh, Castle Lough* (XX). Gale; S on hills.—*Ramelton, Killygarvan Glebe* (XXIII). Gale at night from S.

1st and 2nd.—*Burton-on-Trent* (VI). River Trent in flood.—*Watten, H.R.S.* (XIX). S.E. gale.

1st—5th.—*Miltown Malbay* (XX). Boisterous and stormy, with S, H and R.

2nd.—*Torquay, Babbacombe* (V). T.—*Derby, Elvaston* (VII). T, with heavy showers.—*Glasgow* (XIV). H.—*S. Uist, Ardkenneth* (XVIII). Violent gale from S.—*Drumnadrochit* (XVIII). S.—*Derrycastle* (XX). S and R.—*Galway, Queen's College* (XXII). Wind force 10 through the night.—*Crossmolina, Enniscoe* (XXII). Sleet.

3rd.—*Littlehampton* (II). Solar halo.—*Gloucester, Maisemore Lock* (VI). H.—*Shap, Copy Hill* (X). Strong gale at night.—*Llandovery* (XI). H.—*Balquhidder, Stronvar* (XVI). A gale and heavy R, 1·10 in.—*Drumnadrochit* (XVIII). S and sleet, with strong S.W. wind—*Nenagh, Castle Lough* (XX). S on hills.

3rd—7th.—*Douglas, Victoria Road* (XI). S.W. gales constantly.

4th.—*Diss* (IV). S.W. gale.—*Torquay, Babbacombe* (V). S.W. gale.

4th and 5th.—*Emsworth, Redlands* (II). S.W. gale.

5th.—*Shap, Copy Hill* (X). Strong gale all day.—*Clifden, Kylemore* (XXII). H.—*Crossmolina, Enniscoe* (XXII). Sleet.

6th.—*Burton, Hoar Cross* (VI). H.—*East Layton* [*Darlington*]. (IX). H.—*Melrose* (XII). S and H.—*Forsinard, H.R.S.* (XIX). S.—*Ennis* (XX). H and R.—*Ballinamore, Lawderdale* (XXII). S.—*Londonderry, Knockan* (XXIII). Heavy H showers.—*Ramelton, Killygarvan* (XXIII). Stormy with H and R.

6th and 7th.—*Ballantrae, Glendrishaig* (XIV). H showers.

7th.—*Wantage, East Hendred* (II). Heavy gale.—*Torquay, Babbacombe* (V). S.W. gale—*Worcester, Diglis* (VI). Heavy S.W. gale.—*Melrose* (XII). Gale lasting 12 hours.—*Balquhidder, Stronvar* (XVI). Very heavy R (2·07 in.) and gale in evening.—*Forsinard, H.R.S.* (XIX). Sleet.—*Watten, H.R.S.* (XIX). Storm of wind and R from E. at night.—*Derrycastle* [*Killaloe*] (XX). H in afternoon ; heavy S at night.—*Ennis* (XX). S and R.—*Miltown Malbay* (XX). R, S and sleet.—*Broadford, Hurdlestown* (XX). Great fall of S at night.—*Galway, Queen's College* (XXII). Heavy squalls, wind force 12.—*Ballinasloe, Kilconnell* (XXII). S and R.—*Clifden, Kylemore* (XXII). Strong W. gale.—*Crossmolina, Enniscoe* (XXII). H.—*Ballinamore, Lawderdale* (XXII). Heavy S. gale.—*Ramelton, Killygarvan* (XXIII). Heavy S.E. gale.

7th and 8th.—*Emsworth, Redlands* (II). Squally S.W. gale.—*Diss* (IV). Continuous S.W. gale.

7th—9th.—*Newcastle West* (XX). H in fierce showers ; N.W. gales ; Deel flooded.

8th.—*Llandovery* (XI). S and H.—*Derrycastle* (XX). Heavy S.—*Miltown Malbay* (XX). H and R ; T and L.—*Broadford, Hurdlestown* (XX). S all the morning.—*Ballinasloe, Kilconnell* (XXII). S, H and sleet.—*Clifden, Kylemore* (XXII). Gale from W., with H.—*Crossmolina, Enniscoe* (XXII). S.—*Londonderry, Knockan* (XXIII). S.

8th and 9th.—*Beaminster* (V). H storms.—*Torquay, Babbacombe* (V). H.

8th—10th.—*Builth, Abergwessin* (XI). H and S daily.—*Ballinamore, Lawderdale* (XXII). S.

8th—12th.—*Ballantrae, Glendrishaig* (XIV). S showers ; hills white on 10th and 11th.

9th.—*Finchley, Etchingham Park* (I). Heavy showers of H.—*Pinner*

Hill (I). H.—*Dorking, Abinger* (II). H and T.—*Canterbury, Harbledown* (II). S and H.—*St. Lawrence* (II). H, S, sleet, L over the sea.—*Emsworth, Redlands* (II). W. gale, with T, H and R.—*Winslow, Addington* (III). T.—*Oxford* (III). H and S.—*Southend* (IV). H and sleet.—*Ashburton, Druid* (V). H and S; hills white.—*Cirencester, Further Barton* (VI). S.—*Gloucester, Maisemore Lock* (VI). T, S and H.—*Cheltenham* (VI). TS at 11 a.m., with S and H.—*Ross, The Graig* (VI). Heavy H storm at 10.30 a.m.—*Burton, Hoar Cross* (VI). H and S.—*Cheadle, The Heath House* (VI). H, R and S.—*Melton Mowbray, Coston* (VII). S, H, R, T and L.—*Ketton Hall* [*Stamford*] (VII). Heavy storm, with H, T and S.—*Nottingham, Strelley* (VII). Heavy H, with T and L at 1.30 p.m.—*Lancaster* (VIII). S.—*Shap, Copy Hill* (X). Heavy fall of S.—*Cardiff, Park Place* (XI). Stormy with H.—*Newton, Oystermouth* (XI). Heavy S.—*Llechryd, Castle Malgwyn* (XI). H and sleet.—*Builth, Llanwrtyd Wells* (XI). R, H and S.—*Carno, Tybrith* (XI). S.—*Corwen, Rhug* (XI). S.—*Glasgow* (XIV). S.—*Islay, Gruinart* (XV). S.—*Balquhidder, Stronvar* (XVI). S showers.—*Dunkeld, Inver Braan* (XVI). S.—*Nenagh, Castle Lough* (XX). S on hills.—*Miltown Malbay* (XX). S, sleet and R.—*Galway, Queen's College* (XXII). Heavy showers of sleet.—*Ramelton, Killygarvan* (XXIII). S at night.—*Buncrana, Rockfort* (XXIII). S.

9th and 10th.—*Diss* (IV). H storms.—*Burton-on-Trent* (VI). S storms.—*Shap, Copy Hill* (X). Heavy falls of S, causing serious losses among the lambs.—*Llandovery* (XI). Heavy falls of S.—*Derrycastle* (XX). S.—*Clifden, Kylemore* (XXII). H and sleet.—*Londonderry, Knockan* (XXIII). Very wintry, country white with S.

9th—11th.—*Northampton, Sedgebrooke* (III). S daily.—*Torquay, Babbacombe* (V). S.—*Coventry, Coundon* (VI). S.—*Mansfield* (VII). S.—*Macclesfield* (VIII). S.

10th.—*Finchley, Etchingham Park* (I). Heavy shower of S.—*Pinner Hill* (I). S.—*Emsworth, Redlands* (II). S.W. gale, with S, H and R.—*Wantage, East Hendred* (II). H and S.—*Winslow, Addington* (III). Heavy S storm, T.—*Oxford* (III). H storms.—*Ashburton, Druid* (V). S.—*Gloucester, Maisemore Lock* (VI). S.—*Ross, The Graig* (VI). S.—*Melton Mowbray, Coston* (VII). R, H and T.—*Ketton Hall* [*Stamford*] (VII). S.—*Nottingham, Beeston Fields* (VII). T, S and H, and darkness at 0.30 p.m.—*Nottingham, Strelley* (VII). TS with S.—*Derby, Elvaston* (VII). Heavy S storm with T and L.—*Broughton-in-Furness* (VIII). S; mountains white to their feet.—*Meltham, Harewood Lodge* (IX). Very large flakes of S about 5.30 p.m., equal to $1\frac{1}{2}$ in. square

in area.—*Wakefield, Stanley Vicarage* (IX). S.—*Scarborough* (IX). H. —*East Layton* [*Darlington*] (IX). Much sleet and S.—*Llanfrechfa* (XI). Heavy H.—*Llechryd, Castle Malgwyn* (XI). Very heavy S storm.—*Builth, Llanwrtyd Wells* (XI). Heavy S showers.—*Corwen, Rhug* (XI). H.—*Douglas, Victoria Road* (XI). Heavy S on the N.W. side of the Island; L at 9 p.m.—*Dumfries, Crichton Institution* (XII). S on the hills.—*Melrose* (XII). S, ground white in morning.—*Glasgow* (XIV). H and S.—*Nenagh, Castle Lough* (XX). S and sleet.—*Newcastle West* (XX). Hills white with H.—*Broadford, Hurdleston* (XX). S in morning.—*Galway, Queen's College* (XXII). Gales with showers of sleet.

10th and 11th.—*Wrotham, The Elms* (II). R, H and S.—*Adstock* (III). S.—*Worcester, Diglis Lock* (VI). S.—*Burton, Hoar Cross* (VI). S.—*Cheadle, The Heath House* (VI). S.

11th.—*Dorking, Abinger* (II). S and R.—*Wallington* (II). Soft H. —*Littlehampton* (II). S.—*Emsworth, Redlands* (II). S and H.—*Winslow, Addington* (III). Snowing all the morning.—*Oxford* (III). H storms.—*Ashburton, Druid* (V). S; moor white.—*Gloucester, Maisemore Lock* (VI). T and H.—*Ross, The Graig* (VI). T and R.—*Ketton Hall* [*Stamford*] (VII). H and S.—*Llanfrechfa* (XI). S on mountains.— —*Dumfries, Crichton Inst.* (XII). S and R.—*Newcastle West* (XX). H and sleet.

14th.—*Nottingham, Beeston Fields* (VII). Fog.

15th.—*Winslow, Addington* (III). H.—*Southend* (IV). H.

16th.—*Diss* (IV). H.—*Shap, Copy Hill* (X). H.

18th.—*Wallington* (II). Very foggy.—*Winslow, Addington* (III). T and R.—*Northampton, Sedgebrooke* (III). T and L.—*Alconbury* (III). TS.—*Southend* (IV). Heavy fog.—*Worcester, Diglis* (VI). Heavy gale from N.—*Ketton Hall* [*Stamford*] (VII). T at 6.30 p.m.

18th and 19th.—*Douglas, Victoria Road* (XI). N.E. gales.

19th.—*Emsworth, Redlands* (II). T.—*Broadford, Hurdlestown* (XX). N.E. gale.

20th.—*St. Lawrence* (II). L and T at 5.45 a.m.—*Torquay, Babbacombe* (V). TS; three parhelia.

23rd.—*Emsworth, Redlands* (II). T.—*Ross, The Graig* (VI). Distant T.—*Miltown Malbay* (XX). S on mountains.

24th.—*Wantage, East Hendred* (II). TS.—*Tring Vicarage* (III). TS; only ·08 in. of R at the vicarage, while a quarter of a mile away the R was so heavy as to flood the road and burst the drains.—*Winslow, Addington* (III). Sharp TS in afternoon.—*Oxford* (III). TSS.—*Northampton, Sedgebrooke* (III). Storms of R with T and L.—*Bishop's Can-*

nings (V). T ; ·66 in. of R in 40 minutes.—*Ashburton, Druid* (V). TS. —*Bath, Queen's Parade* (V). TS.—*Cirencester, Further Barton* (VI). TS. —*Andoversford, Hampen* (VI). 1·15 in. of R fell in rather over an hour in a storm which was extremely local.—*Cheltenham* (VI). TS at 7 p.m. —*Melrose* (XII). Fog.

26th.—*St. Laurence* (II). L over the sea.—*Torquay, Babbacombe* (V). TS.

27th.—*St. Laurence* (II). L, T and R for ten minutes at 1 a.m.— *Emsworth, Redlands* (II). L.—*Northampton, Sedgebrooke* (III). L.—*St. John's* [*Devonport*] (V). T at 5.30 p.m.—*Ketton Hall* [*Stamford*] (VII). L at night.—*Macclesfield* (VIII). L at 9.45 p.m.—*Shap, Copy Hill* (X). H.—*Builth, Abergwessin* (XI). Distant T.—*Derrycastle* [*Killaloe*] (XX). R and T from 1.30 p.m. to 4 p.m.—*Kilkishen* (XX). T and R, very heavy about a mile distant.—*Broadford, Hurdlestown* (XX). Heavy T in afternoon.—*Athlone, Twyford* (XXI). Very severe T, with H and R, occurred at Athlone ; only moderate R (·35 in.) at Twyford.— *Ballinasloe, Kilconnell* (XXII). TS.

28th.—*Dorking, Abinger* (II). T.—*Wrotham, The Elms* (II). S and R. —*Oxford* (III). TSS.—*Northampton* (III). Gale.—*Warminster* (V). TS with heavy R, 1·54 in.—*Bishop's Cannings* (V). T.—*Calne, Compton Bassett* (V). Severe TS with heavy R, ·55 in.—*Temple Combe, Stowell Rectory* (V). TS from 3 p.m. to 4 p.m. ; an extraordinary fall of temp. from 63°·5 at 9 a.m. on 28th to 37°·5 at 9 a.m. on 29th.—*Gloucester, Maisemore Lock* (VI). S.—*Burton, Hoar Cross* (VI). S.—*Cheadle, The Heath House* (VI). TS at 8.30 a m.—*Melton Mowbray, Coston* (VII). Rapid fall of temp., 10° between 9 a.m. and 10 a.m.—*Derby, Elvaston* (VII). High winds from N.E., with T and heavy showers.—*Macclesfield* (VIII). Cold and stormy with S.—*Llanfrechfa* (XI). T and L at 3 p.m.—*Llandovery* (XI). TS.—*Llechryd, Castle Malgwyn* (XI). TSS at night.—*Builth, Llanwrtyd Wells* (XI). T and L.—*Builth, Abergwessin* (XI). T.—*Corwen, Rhug* (XI). S.—*Douglas, Victoria Road* (XI). A bitter N.E. gale.—*Melrose* (XII). Sleet.—*Forres, H.R.S.* (XVII). H.—*Dunmanway, Coolkelure* (XX). Heavy TS.—*Miltown Malbay* (XX). Heavy T and L.

28th and 29th.—*Wantage, East Hendred* (II). Temp. fell 28° in a few hours on afternoon of 28th, and the mean temp. of 29th was 15° lower than that of 28th.

29th.—*Pinner Hill* (I). Gale.—*Dorking, Abinger* (II). S storm, rather heavy.—*Reigate, Holmfels* (II). S.—*Wallington* (II). S.—*Keston Tower* (II). S.—*Crewkerne, Bincombe House* (V). Sharp frost at night.

—*Southend* (IV). S.—*Ashburton, Druid* (V). S, hills white.—*Cheadle, The Heath House* (VI). Ground white with S.—*Macclesfield* (VIII). Hills covered with S.—*Shap, Copy Hill* (X). Cuckoo heard.—*Melrose* (XII). S.

30th.—*Rendlesham Hall* (IV). Hard frost at night.—*Diss* (IV). Sharp frost with N. wind, doing some mischief.—*Forres, H.R.S.* (XVII). Sleet.

MAY.

1st.—*Reigate* (II). Sharp frost.—*Wallington* (II). Sharp frost.—*Tenterden* (II). Frost.—*Keston* (II). Sharp frost.—*Winslow, Addington* (III). Sharp frost.

1st and 2nd.—*Northampton, Sedgebrooke* (III). Hoar frosts.—*Diss* (IV). Sharp frost.

2nd.—*Cheltenham* (VI). Solar halo, with incipient mock suns at 6 p.m.—*Douglas, Victoria Road* (XI). S.E. gale.—*Clifden, Kylemore* (XXII). Strong gale from S.

3rd—5th.—*St. John's* [*Devonport*] (V). White frosts.

5th.—*Shap, Copy Hill* (X). T.

7th.—*Shap, Copy Hill* (X). T.

8th.—*Beccles, Ellough Rectory* (IV). T.

9th.—*Finchley, Etchingham Park* (I). Heavy R, 1·09 in.—*Ketton Hall* [*Stamford*] (VII). Aurora at 10 p.m.—*S. Uist, Ardkenneth* (XVIII). Curious appearance of aurora of all colours.

9th and 10th.—*Dalnaspidal, H.R.S.* (XVI). S and R.

10th and 11th.—*Oxford, Magdalen College* (III). TSS.

11th.—*Macclesfield* (VIII). E. gale ; hills white.—*Lancaster* (VIII). Swallows found dead in the roads.—*Shap, Copy Hill* (X). H and S. —*Newcastle West* (XX). L and ·72 in. of R, the greater part of which fell between 4 and 5 p.m.—*Miltown Malbay* (XX). Stormy from E., with R, S and sleet.

11th and 12th.—*Builth, Llanwrtyd Wells* (XI). Heavy R, 3·19 in.—*Balrath* (XXI). Very wet, R, 3·17 in.—*Enniscoe* (XXII). Heavy R, 1·98 in.—*Seaforde* (XXIII). R, 3·34 in. ; with sleet.—*Newtownards* (XXIII). R, 3·01 in.—*Belfast, New Barnsley* (XXIII). R, 2·24 in. partly S which lay on the hills till 15th.—*Stewartstown* (XXIII). R, 1·69 in.

11th—13th.—*Ross, The Graig* (VI). Incessant R for over 60 hours, 3·38 in. fell.—*Ludlow, Broomfield Vicarage* (VI). R began on the afternoon of 11th, and continued to the morning of 14th, causing heavy

floods, breaking the railway in two places, and washing away several bridges; 5·05 in. fell.—*Pontesbury, The Villa* (VI). Over 6 in. of R fell in 60 hours.—*Burton-on-Trent* (VI). R, 3·17 in..—*Frodsham, Dunsdale* (VIII). R, 3·22 in. in the three days.—*Chelford, Astle Hall* (VIII). A strong and bitter N.E. wind, which killed large numbers of swallows.—*Aigburth, Kelton* (VIII). R, 2·45 in. in 60 hours.—*Sheffield, Tylecote, Rammoor* (IX). Very heavy R, almost 5 in. in the three days.—*Llanfrechfa* (XI). Continuous heavy R (4·50 in.) causing heavy floods at Monmouth.—*Builth, Abergwessin* (XI). 4·78 in. of R, with T and S.—*Llanstephan* (XI). 3·70 in. of R.—*New Radnor, Dourton* (XI). R, 5·01 in. (2·81 in. of which fell on 12th), at Ednol, 4·56 in. fell, at Penybont, 3·16 in., and at Gwern i Arglwydd, 4·50 in.—*Rhayder, Nantgwillt* (XI). Very wet, 3·59 in.; heavy S on night of 13th.—*Carno, Tybrith* (XI). Very wet, 4·15 in.—*Harwarden* (XI). About 56 hours of continuous heavy R.—*Douglas, Victoria Road* (XI). N.E. gales, with continuous R for 40 hours, ceasing about 9 a.m. on 13th; 2·96 in. fell, accompanied by large snowflakes, and the hills were covered with S.—*Forsinard, H.R.S.* (XIX). S showers.—*Gorey, Courtown* (XXI). Heavy R, 2·58 in.—*Derrycastle* [*Killaloe*] (XX). Heavy R, S and sleet, 2·09 in.

11th—14th.—*Pembridge, Marston* (VI). In 60 hours, from 9 p.m. on 11th, to 9 a.m. on 14th, 4·43 in. of R fell, causing very high floods.—*Little Malvern, The Farm* (VI). Incessant R for 60 hours, 4·51 in. On 13th, the road in Malvern Wells was like a river. The Severn and the Avon overflowed their banks, and the railway bridge over the Teme was carried away. On 14th, S fell at 6 a.m., and the Worcestershire Beacon and Clee Hills were white till evening, though the day was sunny.

12th.—*Hackney, Richmond Road* (I). 1·07 in. of R.—*Tenterden* (II). 1·34 in. of R.—*Keston* (II). Heavy R all night, 1·26 in.—*Little Hampton* (II). T, L and heavy R, 1·27 in.—*Uckfield* (II). R, 1·20 in.—*Oxford, Radcliffe Observatory* (III). Continuous heavy R from 5 p.m.; 1·45 in.—*Banbury, Wroxton* (III). R, 1·89 in.; the heaviest fall since October, 1875.—*Calne, Compton Bassett* (V). T and heavy R, ·65 in.—*Torquay, Babbacombe* (V). TS..—*Wolverhampton Park* (VI). 2·08 in. of R.—*Great Malvern, Hornyold Terrace* (VI). R, 2·26 in., the largest fall registered here since July 14th, 1875.—*Cartmel, Holker* (VIII). R, 2·73 in., with frost at night, the day temp. being only 35°.—*Cartmel, Pit Farm* (VIII). R, 2·04 in.—*Wetwang* (IX). Severe N.E., gale with some S.—*East Layton* (IX). R, 1·65 in.—*Richmond, Forcett Park* (IX).

S on moor.—*Shap, Copy Hill* (X). R, H, S and T, 1·01 in.—*Crosby Ravensworth, Reagill* (X). S 8 in. to 10 in. deep.—*Douglas, Victoria Road* (XI). Gale with heavy R; 2·27 in.—*Melrose* (XII). S; hills white.—*Glendrishaig* (XIV). S on hills.—*Broadford, Hurdlestown* (XX). E. gale.—*Ballinasloe, Kilconnell* (XXII). S.—*Ballinamore, Lawderdale* (XXII). S.

12th and 13th.—*Gloucester, Lower Barton Street* (VI). R, 2·64 in., causing the highest flood in the Severn valley since 1852. All the low-lying parts of Gloucester were flooded.—*Gloucester, Maisemore Lock* (VI). Very heavy R; 2·65 in.—*Cheltenham* (VI). Incessant R, 2·03 in.—*Ledbury, Putley Court* (VI). R, 3·62 in.—*Ledbury, Colwall* (VI). R, 4·30 in., the fall of 2·35 in. on 12th, being the heaviest fall in ten years, and that of 13th (1·95 in.) equalling any previous record.—*Hope-under-Dinmore, Hampton Court* (VI). R, 3·93 in.—*Kington, Lynhales* (VI). R, 4·33 in.—*Bishops Castle, More Rectory* (VI). R, 5·26 in.—*Handsworth* (VI). R, 3·49 in., 1·84 in. of which fell on 13th; higher than any previous record for 24 or 48 hours.—*Cheadle, The Heath House* (VI). Heavy R, 2·85 in.—*Great Malvern, Madresfield Court* (VI). Very heavy R (3·74 in.), causing floods such as had not been known for nearly a century.—*Diglis Lock* (VI). Heavy R, 3·50 in.—*Bevere Lock* (VI). Heavy R, 3·35 in.—*Droitwich, Holt Lock* (VI). R, 3·44 in. in the two days.—*Stourport, Lincombe Lock* (VI). R, 3·22 in.—*Melton Coston* (VII). Incessant R, 1·74 in.—*Ketton Hall* (VII). Heavy R, 2·29 in.—*Horncastle, Bucknall* (VII). Heavy R, 1·95 in.—*Owmby Rectory* (VII). R, 1·88 in.—*Nottingham, Beeston Fields* (VII). R, 3·00 in.—*Nottingham, Strelley* (VII). Incessant R, 2·82 in.—*Newark* (VII). Heavy R, 3·08 in.—*Mansfield* (VII). R, 3·43 in.—*Worksop, Hodsock Priory* (VII). Incessant R from 5 a.m. of 12th for about 49 hours, during which time 3·52 in. fell. A very heavy flood followed, which covered a great deal of low ground and damaged several bridges.—*Wirksworth, Holloway* (VII). R, 4·38 in.—*Chesterfield, Grassmoor Colliery* (VII). R, 3·35 in.—*Chesterfield, Gas Works* (VII). R, 4·75 in.—*Chesterfield, Linacre Res.* (VII). R, 4·93 in.—*Chesterfield, Tapton House* (VII). 4·89 in. of R, causing heavy floods.—*Sheffield, Brincliffe Rise* (IX). R, 4·29 in.—*Wath-upon-Dearne, Chapel Street* (IX). Excessive R (3·69 in.), causing disastrous floods.—*Wakefield, Alverthorpe Hall* (IX). Continuous R, 2·98 in., almost destroying the fruit blossom.—*Wakefield, Stanley Vic.* (IX). Incessant R, 2·40 in.—*Ripon, Mickley* (IX). Heavy R, 2·18 in.—*Keswick, Shu-le-Crow* (X). Heavy R and S.—*Castle Malgwyn* (XI). Very wet, R 2·55 in.—*Crickhowel, Gwern-*

vale (XI). R, 2·90 in.—*Corwen, Rhug* (XI). R, 2·61 in.—*Nenagh, Castle Lough* (XX). Very cold N.E. wind, with showers of sleet.—*Clifden, Kylemore* (XXII). S.—*Londonderry, Knockan* (XXIII). Mountains covered with S.

12th—14th.—*Church Stretton, Preen Manor* (VI). 5·89 in. of R fell in 60 hours; S lay 7 in. thick on the Longmynd and Clee Hills; streams and brooks were greatly swollen.—*Coventry, Priory Row* (VI). About 62 hours continuous R, 2·64 in.—*Derby, Elvaston* (VII). Heavy N. and N.E. gales with violent R, 2·59 in., causing disastrous floods, the greatest since October, 1875.

12th—15th.—*Belfast, New Barnsley* (XXIII). S on the hills.

13th.—*Staunton on-Wye* (VI). R, 2·47 in.—*Burton-on-Trent* (VI). R 1·76 in., the heaviest fall since 1877.—*Leicester, Rotherby Hall* (VII). Heavy R, 1·02 in., and flood.—*Louth, Gospel Gate* (VII). R, 1·60 in.—*Broughton-in-Furness* (VIII). S on hills; heavy R, 1·35 in.—*Rotherham, Ulley Reservoir* (IX). The greatest flood within the memory of the oldest inhabitant.—*Driffield, Beverley Road* (IX). Heavy R storm, 1·31 in.—*Scarborough* (IX). 1·34 in. of R, the heaviest fall for four years.—*Shap, Copy Hill* (X). Strong E. gale with S showers.—*Llandovery* (XI). Heavy R, 1·47 in.; hills covered with S.—*Llanidloes, Broomcliffe* (XI). R, 1·46 in.; an extraordinary S storm.—*Melrose* (XII). S on ground in morning.—*Cambuslang, Bushy Hill* (XIV). Campsie hills white with S.—*Galway, Queen's College* (XXII). Heavy S showers.

13th and 14th.—*Worcester, Hawford Lodge* (VI). More than four inches of R fell, causing a great flood in the Severn.—*Stourport, Areley Court* (VI). R, 3·24 in., followed by an extraordinary flood in the Severn.—*Birmingham, Sheldon Rectory* (VI). R, 3·30 in.—*Derby, Findern* (VII). R, 2·32 in.—*Chesterfield, Brimington Hall* (VII). R, 4·45 in.—*Wakefield, Stanley Vic.* (IX). Many swallows dropped in their flight and were picked up dead.—*Usk, Porthycarne* (XI). R, 3·60 in.—*Port Madoc* (XI). S.

13th—17th.—*Burton-on-Trent* (VI). Trent in high flood; water just entered the town.—*Dalnaspidal, H.R.S.* (XVI). S daily.

14th.—*Ross, The Graig* (VI). The Wye at Ross rose to 14 ft. flood, the highest flood known in the month of May.—*Lincoln, D'Isney Place* (VII). Very heavy R; 1·95 in.—*Kingston Hall* [*Loughborough*] (VII). R, 1·33 in.—*Dumfries, Crichton Inst.* (XII). S on hills.—*Loch Shiel, Glenaladale* (XVIII). S on hill tops.—*Forsinard, H.R.S.* (XIX). High N. wind and sleet.—*Watten, H.R.S.* (XIX). N. gale.

14th and 15th.—*Builth, Abergwessin* (XI). H.

15th.—*Pinner Hill* (I). H storm.—*Weybread Vicarage* [*Harleston*] (IV). H storms and high wind.—*Diss* (IV). W. by S. gale.—*Torquay, Babbacombe* (V). H.—*Gloucester, Witcombe Reservoir* (VI). The highest flood in the Severn at Gloucester since 1852, reaching its maximum at 9 p.m., being only 8 in. lower than the flood of 1852.—*Upton-on-Severn* (VI). The highest flood on record here, reached its maximum on the morning of 15th, the Severn having risen 18½ ft. in 58 hours. —*Mansfield* (VII). High wind.—*Derby, Elvaston* (VII). Heavy N.W. gale.—*Llandovery* (XI). H and S.

16th.—*Diss* (IV). S.W. gale.—*Torquay, Babbacombe* (V). S.W gale.—*Shap, Copy Hill* (X). S showers.—*Loch Shiel, Glenaladale* (XVIII). S on hill tops.—*S. Uist, Ardkenneth* (XVIII). Bright aurora.—*Clifden, Kylemore* (XXII). Strong W. gale.

16th and 17th.—*Emsworth, Redlands* (II). S.W. gale.

17th.—*Torquay, Babbacombe* (V). S.W. gale.—*Douglas, Victoria Road* (XI). S.E. gale.—*Tralee, Castlemorris* (XX). Strong S.W. gale, and the highest tide for many years, flooding low-lying districts.—*Broadford, Hurdlestown* (XX). S.W. gale.—*Miltown Malbay* (XX). Heavy S.W. gale.

17th and 18th.—*Diss* (IV). Gale from south.—*Shap, Copy Hill* (X). Gale with heavy showers.

18th.—*Wallington* (II). Strong gale.

19th.—*St. Lawrence* (II). L.—*Emsworth, Redlands* (II). L and T at night.—*Beccles, Ellough Rectory* (IV). T.

19th and 20th.—*Torquay, Babbacombe* (V). Fog.

20th.—*Ashburton, Druid* (V). Dense fog.—*Strathmiglo, Loden Urquhart* (XVI). Heavy R from N.E. (1·42 in.), and very stormy in afternoon and evening.—*St. Andrews* (XVI). R 1·19 in. in 23 hours. —*Dalnaspidal, H.R.S.* (XVI). S.

21st.—*Emsworth, Redlands.* (II). T.

21st and 22nd.—*Kensington, Edith Road* (I). TSS, with heavy R.

21st—25th.—*Tenterden* (II). Frequent TSS.

22nd.—*London, Lansdowne Crescent* (I). A TS of exceptional violence passed over from N.E. to S.W. at 4 a.m. to 4.30 am.; ·93 in. of R falling in half-an-hour.—*Pinner Hill* (I). TS.—*Wallington* (II). Violent TS with H between 1.30 and 4.30 a.m.—*Broxbourne* (III). TS 4 a m. to 5 a.m., a large oak struck and shattered.—*Buntingford, Throcking Rectory* (III). TS.

23rd.—*London, Lansdowne Crescent* (I). TS, with heavy R between

4 a.m and 6 a.m.—*Wallington* (II). TS.—*Keston Tower* (II). T.—*St. Lawrence* (II). Sea fog all day.—*Broxbourne* (III). TS, with heavy R, ·80 in. fell.—*Beccles, Ellough Rectory* (IV). T.—*Torquay, Babbacombe* (V). Fog.—*Melton Mowbray, Coston* (VII). T before 9 a.m.—*Kelton Hall* [*Stamford*] (VII). T at intervals.

24th.—*London, Lansdowne Crescent* (I). Incessant R, 1·07 in. falling in 12 hours.—*Hackney, Richmond Road* (I). 1·36 in. of R.—*Muswell Hill* (I). 1·50 in. of R, 1·31 in. of which fell between 9 a.m. and 10·30 p m.—*Finchley, Etchingham Park* (I). Heavy R, 1·22 in.—*Enfield, Forty Hill* (I). R commenced soon after 10 a.m., and fell till midnight; total 1·54 in.—*Reigate* (II). Thick fog.—*Walton-on-Thames, Hersham* (II). 1·06 in. of R.—*Canterbury, Harbledown* (II). Violent TS from 8·30 p.m. to 9 p.m.; ·82 in. of R fell in two hours.—*Littlehampton* (II). T, L and heavy R, ·78 in.—*Burgess Hill, Prescott* (II). R, 1·48 in., of which 1·25 in. fell between 9 a.m. and 4 p.m.

25th.—*S. Uist, Ardkenneth* (XVIII). H.

25th and 26th.—*Clifden, Kylemore* (XXII). H showers.

26th.—*Ashburton, Druid* (V). H.—*Nottingham, Strelley* (VII). H.—*Loch Shiel, Glenaladale* (XVIII). A little S.—*Galway, Queen's College* (XXII). Heavy showers of H.

27th.—*Littlehampton* (II). S.E. gale.—*St. Lawrence* (II). S. gale at night.—*Emsworth, Redlands* (II). W. to S.W. gale.—*Winslow, Addington* (III). T.—*Calne, Compton Bassett* (V). T and H.—*Torquay, Babbacombe* (V). S.W. gale.—*Burton-on-Trent* (VI). TS.—*Mansfield* (VII). High wind.—*Derby, Elvaston* (VII). Severe TS.—*Macclesfield* (VIII). TS at 5·20 p.m., with H and heavy R, 1·11 in.—*St. Andrews* (XVI). R 1·14 in. in 13 hours.—*Dalnaspidal, H.R.S.* (XVI). S and sleet.—*Nenagh, Castle Lough* (XX). Heavy showers of H, whitening the hills.—*Newcastle West* (XX). H, L and T.—*Broadford, Hurdlestown* (XX). T.—*Miltown Malbay* (XX). T and H, and sharp frost at night, doing much injury to potatoes in low-lying districts.—*Galway, Queen's College* (XXII). Heavy showers of H, some stones measuring half-an-inch in diameter.

27th and 28th.—*Llandovery* (XI). H.—*Derrycastle* [*Killaloe*] (XX). H, S and R.

28th.—*Diss* (IV). S.W. gale.—*Dalnaspidal, H.R.S.* (XVI). S.

29th.—*Finchley, Etchingham Park* (I). Heavy shower with H at 0.45 p.m.—*Weybread Vicarage* [*Harleston*] (IV). TSS.—*Beccles, Ellough Rectory* (IV). T.—*Diss* (IV). Distant T at intervals.—*Dalnaspidal, H.R.S.* (XVI). H.

30th.—*Torquay, Babbacombe* (V). Fog.—*Macclesfield* (VIII). T at noon and 2 p.m.—*Broughton-in-Furness* (VIII). ·75 in. of R fell in about an hour.—*Harrogate* (IX). T and L.—*Dalnaspidal, H.R.S.* (XVI). Sleet.—*Ramelton, Killygarvan* (XXIII). Heavy R, with T and L.

31st.—*Emsworth, Redlands* (II). T at night.—*Littlehampton* (II). T L and heavy R, ·80 in.—*St. Lawrence* (II). L and T, with heavy R, ·52 in.—*Torquay, Babbacombe* (V). T and L and heavy R, 1·24 in., the heaviest fall since May 21st, 1885.—*Axminster, Great Trill* (V). Severe TS from 6 p.m. to 11 p.m., with very vivid L.—*Llanfrechfa* (XI). T at night and heavy R, 1·08 in.—*Miltown Malbay* (XX). H and R.

JUNE.

1st.—*London, Lansdowne Crescent* (I). Distant T and L at 9.30 a.m. —*Finchley, Etchingham Park* (I). Distant T.—*Wallington* (II). TS about 9.15 a.m.—*Keston* (II). T.—*Littlehampton* (II). T and L.—*Northampton, Sedgebrooke* (III). T and L.—*Babbacombe* (V). L; fog.—*Burton-on-Trent* (VI). TS.—*Melton Mowbray, Coston* (VII). T and L, with heavy R, ·70 in.—*Ketton Hall* [*Stamford*] (VII). T and H.—*Spilsby, Partney* (VII). TS between 3 p.m. and 5 p.m. The L was very vivid, and some trees were struck here.—*Derby, Elvaston* (VII). TSS with heavy R.—*Chepstow, Shirenewton Hall* (XI). TS with heavy R. The weight of the storm was between Tintern and St. Arvans. At Tintern R fell in a regular sheet for an hour; at St. Arvans, in the valley, the high road was flooded more than 2 ft. deep for nearly 100 yards. The storm was not violent either at Shirenewton or Chepstow.

1st and 2nd.—*Tenterden* (II). T.—*Worcester, Diglis Lock* (VI). N.W. gales.—*Llanfrechfa Grange* (XI). T.

2nd.—*Dorking, Abinger* (II). Distant T.—*Wallington* (II). Slight TS.—*Dunmow, High Roding* (IV). T, followed by ·74 in. of R, between 5.55 p.m. and 6.30 p.m.—*Gloucester, Quedgeley House* (VI). Severe TS, ·98 in. of R in an hour and a quarter.—*Gloucester, Llanthony Lock* (VI). Violent TS with heavy R, 1·50 in.—*Gloucester, Lower Barton Street* (VI). Terrific TS from 4.30 p.m. to 6.30 p.m., passing from S.W. to N.E., and then returning. Four or five buildings were struck by L. —*Gloucester, Maisemore Lock* (VI). TS.—*Cheltenham* (VI). TS at 5 p.m. —*Ross, The Graig* (VI). TS with very heavy R (·95 in.) flooding the streets from 6 p.m. to 7 p.m. —*Llandovery* (XI). L and heavy T.—*Builth, Llanwrtyd Wells* (XI). R; T at night.—*Glasbury, Woodlands*

(XI). Heavy R commenced about 5.30 p.m., and by 7.30 p.m. 1·27 in. had fallen ; a bridge was washed away on the road between here and Hay, and the railway was blocked.—*Bray, Fassaroe* (XXI). Black R fell at night, colouring sheep, white cows and clothes out to dry. Pools of water along the roads were dark ; impurity probably carbon.

2nd and 3rd.—*Babbacombe.* (V). Fog.

3rd.—*Ashburton, Druid* (V). Fog.

5th.—*Winslow, Addington* (III). Solar halo and mock sun.

7th.—*Miltown Malbay* (XX). Fog.

8th and 9th.—*Dumfries, Crichton Institution* (XII). Fog.

9th.—*Littlehampton* (II). T.—*Winslow, Addington* (III). T.—*Burton-on-Trent* (VI). Heavy TS.—*Frodsham, Dunsdale* (VIII). T.—*Barnard Castle, Whorlton* (X). T.—*Shap* (X). T at 1·35 p.m.—*Builth, Llanwrtyd Wells* (XI). T in afternoon.—*Corwen, Rhug* (XI). TS with heavy R, ·84 in.

9th and 10th.—*Watten, H.R.S.* (XIX). Fog.

10th.—*Shap* (X). Loud T.—*Appleby* (X). Upwards of half-an-inch of R fell in 20 minutes.—*Dumfries, Crichton Institution* (XII). T and L at 10 p.m.—*Melrose* (XII). T and L.—*North Esk Reservoir* [*Penicuick*] (XIII). T and L.—*Dalnaspidal H.R.S.* (XVI). Fog.

11th.—*Littlehampton* (II). T.—*Babbacombe* (V). Fog ; solar halo. —*Dumfries, Crichton Institution* (XII) Fog ; T at 6 p.m.—*Ramelton, Killygarvan* (XXIII). T and L.

12th.—*Cawdor* [*Nairn*]. (XVIII). T.

13th.—*Kensington, Edith Road* (I). In a squall of ten minutes' duration at 1.20 p.m. ·31 in. of R fell.—*Northampton, Sedgebrooke* (III). Slight H storm.—*Sandy, The Lodge* (III). TS.

14th.—*Tenterden* (II). T.—*Canterbury, Harbledown* (II). Slight TS and H.—*Ramelton, Killygarvan* (XXIII). Strong wind all day and night.

15th.—*Barnard Castle, Whorlton* (X). W. gale.—*Shap* (X). Strong gale all day.—*Balquhidder, Stronvar* (XVI). Gale.—*Ramelton, Killygarvan* (XXIII). W.N.W. gale.

15th and 16th.—*Miltown Malbay* (XX). Fog.

16th.—*Derby, Elvaston* (VII). High N.W. wind.

17th.—*South Uist, Ardkenneth* (XVIII). H.—*Derrycastle* [*Killaloe*] (XX). Fog in evening.

18th.—*Wallington* (II). T.

19th.—*Wantage, East Hendred* (II). Heavy TS with large H, doing

much damage.—*Salisbury*, *Alderbury* (V). TS about 5.30 p.m.—*Beaminster* (V). TS at 6 p.m.—*Shaftesbury* (V). T.—*Cheltenham* (VI). T.

22nd.—*Gloucester*, *Quedgeley House* (VI). R, ·04 in.; the only fall from June 14th to July 11th.—*Drumnadrochit* (XVIII). The Ben Attow and Mam Soul range tipped with fresh S; about 9.30 a.m. a sharp H shower occurred, leaving roads and other bare places white for a few minutes.

23rd.—*Derby*, *Elvaston* (VII). High W. wind.—*Shap* (X). Strong gale.—*Dalnaspidal H.R.S.* (XVI). S.—*Ramelton*, *Killygarvan* (XXIII) W. by N. gale all day.

24th.—*South Uist*, *Ardkenneth* (XVIII). H.

25th.—*Clifden*, *Kylemore* (XX). Fog.

26th.—*Calne*, *Compton Bassett* (V). T and L.

27th and 28th—*Kingussie*, *H.R.S.* (XVIII). Grass frosts, killing potatoes.

28th.—*North Esk Reservoir* [*Penicuick*] (XIII). Solar halo at 6 p.m.

29th.—*North Esk Reservoir* [*Penicuick*] (XIII). Mock sun at 5.30 a.m.

JULY.

2nd.—*Mansfield* (VII). Distant T.

3rd.—*Temple Combe*, *Stowell Rectory* (V). Distant T in afternoon and evening.—*Melrose* (XII). T and L.

4th.—*Shap* (X). Distant T.

7th.—*Leicester*, *Town Hall Square* (VII). ·57 in. of R in 23 minutes, at the rate of 1·48 in. per hour.

8th.—*Drumnadrochit* (XVIII). The most severe summer frost for about 23 years, damaging potatoes, ferns, heather, and a large number of alpine and sub-alpine plants.

9th.—*Melrose* (XII). T at 3·40 p.m.

10th.—*Ashburton*, *Druid* (V). The twenty-sixth consecutive dry day.

11th.—*Lincoln*, *D'Isney Place* (VII). No R fell from June 20th to this date.

13th.—*Littlehampton* (II). Gale at night.—*Llanfrechfa Grange* (XI). Storm of wind and R.

14th.—*Diss* (IV). S. gale in afternoon and evening.—*Burton-on-Trent* (VI). W. gale.—*Shap* (X). Strong gale all day.

17th.—*London*, *Lansdowne Crescent* (I). ·29 in. of R fell between 11.15 p.m. and 0.30 a.m. (18th).—*Ashburton*, *Druid* (V). Fog.—

Dumfries, Crichton Inst. (XII). Fog.—*Edgworthstown, Currygrane House* (XXI). R 1·20 in.

17th and 18th.—*Clifden, Kylemore* (XXII). Heavy R, 2·49 in.

19th.—*London, Lansdowne Crescent* (I). ·59 in. of R fell between 10.15 p.m. and 11 p.m.—*Emsworth, Redlands* (II). Distant T.

20th.—*Mayfield Vicarage* (II). Solar halos and mock suns at 5 p.m. —*St. Andrews* (XVI). T.

20th and 21st.—*Miltown Malbay* (XX). Very heavy gale from S. —*Clifden, Kylemore* (XXII). R 3·61 in., causing very heavy floods.

21st.—*Finchley, Etchingham* (I). L and T about 5 p.m.—*Littlehampton* (II). Distant T.—*Sudbury* (IV).—·70 in. of R fell in an hour-and-a-half.—*Diss* (IV). Distant TS to S.E. in evening.—*Cirencester, Further Barton* (VI). In less than an hour ·36 in. of R fell.—*Macclesfield* (VIII). T at 2.30 p.m.—*Liverpool, Walton-on-the-Hill* (VIII). R 1·03 in., nearly all of which fell in 15 minutes during a TS about 2 p m.—*Hest Bank* (VIII). ·75 in. of R in about 1½ hour.—*Meltham, Harewood Lodge* (IX). T and L at 4 p.m.—*Ingleton, Halsteads* (IX). R, 1·31 in., of which ·61 in. fell in 9 minutes, and 1·29 in. fell in 49 minutes.—*Barnard Castle, Whorlton* (X). T and L with heavy R.—*Shap* (X). TS; an inch of R fell in one hour.—*Llechryd, Castle Malgwyn* (XI). TSS. —*Melrose* (XII). T and L at 5 p.m.—*Dumfries, Crichton Institution* (XII). T and L with heavy R at 4 p.m.—*North Esk Reservoir* [*Penicuick*] (XIII). T.—*Dunkeld H.R.S.* (XVI). Severe TS at night.—*Derrycastle* [*Killaloe*] (XX). T with heavy H and R from 3 to 4 p.m. —*Newcastle West* (XX). L and heavy showers.

22nd.—*Littlehampton* (II). Strong gale.—*Torquay, Babbacombe* (V). S.W. gale.—*Shap* (X). Gale all day; T.—*Douglas, Victoria Road* (XI). S. gale.—*Dalnaspidal H.R.S.* (XVI). T, R, and sleet.

22nd and 23rd.—*Emsworth, Redlands* (II). S.W. gale.—*Mansfield* (VII.) High wind.

23rd.—*Torquay, Babbacombe* (V). Fog.

24th.—*Watten H.R.S.* (XIX). Fog at night.—*Newcastle West* (XX). L.

25th.—*Wallington* (II). TS.—*Wantage, East Hendred* (II). T and L, with very heavy R (1·83 in.) at night.—*Broadbourne* (III). T in the evening.—*Winslow, Addington* (III). T and heavy R (2·25 in.) commencing about 4 p.m., and continuing at intervals till the middle of the night; with one exception, viz., June 30th, 1873, when 2·64 in. fell, the heaviest R recorded here.—*Oxford, Radcliffe Observatory* (III). TSS from 5 p.m. till 3 a.m. on 26th, 1·82 in. of R.—*Oxford* (III).

T, L and heavy R, 1·92 in.—*St. Neots, Tetworth Hall* (III). R. 1·84 in. in a few hours in the evening.—*Diss* (IV). Distant TS to S.E. in the evening.—*Downham, Crimplesham* (IV). Heavy R, 1·34 in.—*Torquay, Babbacombe* (V). Fog, T and heavy R, ·85 in.—*Ashburton, Druid* (V). T and L.—*Teignmouth, Woodway* (V). Distant T at 3·15 p.m.—*Cirencester, Further Barton* (VI). TS.—*Gloucester, Maisemore Lock* (VI). T and heavy R.—*Melton Mowbray, Coston* (VII). T with heavy R (·54 in.) in evening.—*Ketton Hall, [Stamford]* (VII). Distant T, with heavy R, 1·03 in. at night.—*Mansfield* (VII). Distant T.—*Derby, Elvaston* (VII). Very heavy showers, with T and L.—*Macclesfield* (VIII). Heavy R, 1·25 in. ; T at 7 p.m.—*Sale, Brooklands* (VIII). 2·58 in. of R in one hour.—*Manchester, Stretford* (VIII). TS ; R, 1·96 in ; of which 1·54 in. fell in 1¼ hour.—*Wath-upon-Dearne, Chapel Street* (IX). R, 2·95 in., the heaviest fall registered during 30 years.—*Meltham, Harewood Lodge* (IX). TS from 8 p.m. to 9 p.m., ·40 in. of R fell in less than 20 minutes. Very heavy R fell during the night. Mist with TS above it, and L of a reddish violet colour shining through.—*Wakefield, Alverthorpe Hall* (IX). The only severe TS of the year.—*Wakefield, Stanley Vicarage* (IX). TS from 10 p.m to 11 p.m., and 2·50 in. of R.—*Wakefield, Field Head* (IX). R, 3·25 in. in 12 hours, from 9 p.m. to 9 a.m. of 26th.—*Halifax, Thorpe* (IX). 2·35 in. of R in about 14 hours.—*South Milford Rectory* (IX). R began about 9 p.m., with L and T, but was not heavy till about 11 ; at 9 a.m. next morning the gauge which holds 3·72 in. was overflowing.—*Scarborough* (IX). R, 1·55 in. ; TS at midnight.—*Llanfrechfa Grange* (XI). Distant T.—*Douglas, Victoria Road* (XI). Fog, L in evening ; and TS at night, with the heaviest R (1·27 in.) while it lasted, since September 28th, 1883.—*Balquhidder, Stronvar* (XVI). T at 5 p.m.—*Nenagh, Castle Lough* (XX). R 1·22 in., the heaviest fall since August 12th, 1883.—*Miltown Malbay* (XX). Distant T.—*Edgworthstown, Currygrane House* (XXI). R, 1·00 in.—*Ramelton, Killygarvan* (XXIII). T and L.

25th and 26th.—*Denver* (IV). R 2·87 in.—*Fylingdales Vic.* (IX). R, 3·00 in.—*Whitby, Guisborough Road* (IX). R 3·50 in. within 24 hours.—*Darlington, Cleveland Parade* (X). 2·53 in. of R in about 30 hours.—*Sunderland, West Hendon House* (X). 2·22 in. of R in 24 hours ; probably the heaviest fall recorded.

26th.—*Macclesfield* (VIII). Very dark from 6 to 7 p.m.—*Leeds, Methley Park* (IX). Very heavy R (4·10 in.) causing the Calder and Aire to overflow their banks.—*York, Manor House* (IX). Heavy R ; 2·21 in.—*Malton* (IX). Between 0·15 a.m. and 8 a.m., 1·85 in. of R

fell, and to 8 a.m. on 27th, ·50 in. more.—*Douglas, Victoria Road* (XI). Loud T at 5 a.m.

26th and 27th.—*Ingleby Manor* (IX). Very heavy R, 3·70 in.

27th.—*Melrose* (XII). Aurora at 10.30 p.m.—*Dalnaspidal, H.R.S.* (XVI). Aurora.—*Drumnadrochit* (XVIII). Brilliant display of aurora.

28th.—*Canterbury, Harbledown* (II). T and L.—*Craven Arms, Stokesay Vicarage* (VI). Frost.

28th and 29th.—*Watten, H.R.S.* (XIX). Sharp frost.

30th.—*Leicester, Town Hall Square* (VII). ·22 in. of R in 8 minutes; at the rate of 1·65 in. per hour.

31st.—*Canterbury, Harbledown* (II). T and L.—*Wrotham* (II). Severe TS in evening.—*Littlehampton* (II). Very sharp TS.—*Emsworth, Redlands* (II). Distant T.—*Diss* (IV). Distant TS in afternoon.—*Ketton Hall* [*Stamford*] (VII). Distant T.—*Mansfield* (VII). Distant T.—*Melrose* (XII). Severe TS from noon to 4 p.m. At Gattonside, about a mile from Melrose, a large ash tree was struck.—*North Esk Reservoir* [*Penicuick*] (XIII). Much T and L.

AUGUST.

1st.—*Torquay, Babbacombe* (V). Fog.

3rd—6th.—*Miltown Malbay* (XX). Fog daily.

4th.—*Wallington* (II). Foggy all day.

4th and 5th.—*Shap* (X). T.

5th.—*Ashburton, Druid* (V). Fog on hills.—*Langtree* (V). Very foggy.—*Douglas, Victoria Road* (XI). Fog in evening.—*Dumfries, Crichton Institution* (XII). Fog.

5th and 6th.—*Torquay, Babbacombe* (V). Fog.

6th.—*Littlehampton* (II). Sea fog.

7th.—*Langtree* (V). Dense fog.—*Llanfrechfa Grange* (XI). S.W. gale, subsiding at 4 p.m.—*Derrycastle* [*Killaloe*] (XX). Fog.—*Clifden, Kylemore* (XXII). Strong W. gale.

8th.—*Dumfries, Crichton Institution* (XII). T.

9th.—*Lewes, Iford* (II). ·87 in. of R in 40 minutes.—*Emsworth, Redlands* (II). Fog.—*Torquay, Babbacombe* (V). Fog.—*St. Andrews* (XVI). T.

10th.—*Burton-on-Trent* (VI). TS.—*Dumfries, Crichton Institution* (XII). Fog.—*Melrose* (XII). Severe TS from 3 p.m. to 7·30 p.m.—*North Esk Reservoir* [*Penicuick*] (XIII). T and L.—*Balquhidder, Stronvar* (XVI). T at 3 p.m.

13th.—*Emsworth, Redlands* (II). S.W. gale.—*Ross, The Graig* (VI). The only TS of the month.—*Burton, Hoar Cross* (VI). TS.—*Melton Mowbray, Coston* (VII). T.—*Ketton Hall* [*Stamford*] (VII). T.—*Nottingham, Beeston Fields* (VII). Severe TS. Trent station, and many trees, struck by L.—*Nottingham, Strelley* (VII). T all the afternoon, violent TS with heavy R (·54 in.) from 3 p.m. to 4 p.m.—*Derby, Findern* (VII). TS with heavy R.—*Derby, Elvaston* (VII). Terrific TS with heavy R.—*Manchester, Stretford* (VIII). TS; R 1·10 in., 1 in. falling in three quarters of an hour.—*Dumfries, Crichton Institution* (XII). Fog.

14th.—*Clifden, Kylemore* (XXII). Strong W. gale.

15th.—*Douglas, Victoria Road* (XI). S.E. gale and R all day.—*Dumfries, Crichton Institution* (XII). Fog.—*Broadford, Hurdlestown* (XX). S.W. gale at night.—*Miltown Malbay* (XX). N.W. gale.

16th.—*Emsworth, Redlands* (II). Squally S.W gale.—*Clifden, Kylemore* (XXII). Severe N. gales.

17th.—*Beccles, Ellough* (IV). T.—*Glendrishaig* (XIV). Fog.

17th—20th.—*Derrycastle* [*Killaloe*] (XX). Fog morning and evening each day.

18th.—*Broadford, Hurdlestown* (XX). Dense fog at night.

20th.—*Gloucester, Maisemore Lock* (VI). Fog.—*Ketton Hall* [*Stamford*] (VII). Fog in early morning.

21st.—*Gloucester, Llanthony Lock* (VI). Fog.

22nd—25th.—*Winslow, Addington* (III). Fog each morning.—*Dumfries, Crichton Institution* (XII). Fog each day.

23rd.—*Reigate, Holmfels* (II). Thick fog.—*Emsworth, Redlands* (II). Distant T; much L at night.—*Torquay, Babbacombe* (V). L.

26th.—*Douglas, Victoria Road* (XI). Fog.

28th.—*Douglas, Victoria Road* (XI). Fog.—*Dumfries, Crichton Inst.* (XII). Fog.

28th—30th.—*Ashburton, Druid* (V). Heavy dew each night.

29th.—*Beccles, Ellough* (IV). Heavy dew.—*Gloucester, Maisemore Lock* (VI). Fog.—*Worcester, Diglis Lock* (VI). Fog.—*Newcastle West* (XX). Frost.—*Miltown Malbay* (XX). L.

30th.—*Wallington* (II). A shower of winged ants.

31st.—*Ashburton, Druid* (V). Fog to 11 a.m.—*Dumfries, Crichton Institution* (XII). Fog.

SEPTEMBER.

1st.—*Diss* (IV). L in evening.—*Ashburton, Druid* (V). Fog.

2nd.—*Hythe* (II). TS.—*Beaminster* (V). TS from 9 p.m. to 11 p.m.

—*Shap* (X). T.—*Miltown Malbay* (XX). Blood red sun, the day of the Charlestown earthquake.

3rd.—*Kensington, Campden Hill* (I). In less than half-an-hour ·50 in. of R fell.—*Canterbury, Harbledown* (II). Severe TS at midnight.—*Oxford* (III). TS.—*Torquay, Babbacombe* (V). Fog in morning; TS 8.50 p.m. to 11 p.m.—*Ashburton, Druid* (V). Fog and R all day; T and L.—*South Petherton* (V). Severe TS.—*Temple Combe, Stowell Rectory* (V). TS from 10.30 p.m. to 11.30 p.m. to S.E.—*Macclesfield* (VIII). E. gale.—*Llanfrechfa Grange* (XI). T and L at night.—*Dumfries, Crichton Institution* (XII). T at 7 p.m.

3rd and 4th.—*Shaftesbury* (V). T.—*Melrose* (XII). Fog.

3rd—5th.—*Llandovery* (XI). T daily.

4th.—*London, Lansdowne Crescent* (I). Great darkness at 8.15 a.m.; TS at 8.20 a.m.; ·62 in. of R fell in about 25 minutes.—*Pinner Hill* (I). T and L.—*Dorking, Abinger* (II). TS.—*Wallington* (II). TS.—*Tenterden* (II). Extraordinary fog and darkness, followed by TS.—*Hythe* (II). TS with heavy R, 1.13 in.—*Keston Tower* (II). Heavy TS.—*Slough, Upton* (III). In one hour, from 8.30 a.m., ·49 in. of R fell.—*Winslow, Addington* (III). Sharp TS about 9.15 a.m., preceded by an unnatural darkness for about ten minutes.—*Northampton, Sedgebrooke* (III). TS in morning.—*Rendlesham Hall* (IV). TS.—*Weybread Vicarage* [*Harleston*] (IV). Slight TS at night.—*Diss* (IV). Singularly vivid and continuous L after 9 p.m.—*Downham, Crimplesham* (IV). Much L in evening.—*Torquay, Babbacombe* (V). Fog.—*Ashburton, Druid* (V). Fog.—*Temple Combe, Stowell Rectory* (V). TS in night.—*Cirencester, Further Barton* (VI). TSS.—*Cheltenham* (VI). Terrible TS with H and sleet.—*Ross, The Graig* (VI). Severe TS.—*Pembridge, Marston* (VI). Two very heavy TSS with R, ·83 in.—*Worcester, Diglis Lock* (VI). Severe TS with heavy R, 1·85 in.—*Burton-on-Trent* (VI). Severe TS with heavy R.—*Little Malvern, The Farm* (VI). Three TSS, in which 1·28 in. of R fell.—*Melton Mowbray, Coston* (VII). L at night.—*Derby, Elvaston* (VII). T and L at night.—*Macclesfield* (VIII). L in S. from 7.30 p.m.; TS at 9.30 p.m.—*Swansea, Morriston* (XI). R 1·93 in. between 3 and 5 p.m.—*Penllergare* (XI). R 1·73 in., the greater part of which fell in about three hours.—*Builth, Llanwrtyd Wells* (XI). T, L and heavy R in afternoon.—*Corwen, Rhug* (XI). TS.—*Dumfries, Crichton Institution* (XII). L at 9 p.m.—*Watten H.R.S.* (XIX). Fog at night.

4th and 5th.—*Gloucester, Maisemore Lock* (VI). TSS.—*Burton, Hoar Cross* (VI). TSS.—*Colmonell* (XIV). T and L.

5th.—*Canterbury, Harbledown* (II). T and L, with heavy R at 8·30 a.m.—*Rendlesham Hall* (IV). TS.—*Diss* (IV). Distant T all afternoon from S.E.—*Warminster* (V). TS at 4 a.m.—*Falmouth Observatory* (V). An inch of R fell between 1.40 a.m. and 2 a.m.—*Little Malvern, The Farm* (VI). Sudden, violent squall at 3 p.m.—*Ketton Hall* [*Stamford*] (VII). Fog early.—*Barnard Castle, Whorlton* (X). T.—*Builth, Llanwrtyd Wells* (XI). Heavy showers, with T.—*Douglas, Victoria Road* (XI). T and L at night, with heavy R, ·90 in.—*Dumfries, Crichton Institution* (XII). T and L at 3 p.m.—*Glendrishaig* (XIV). T and heavy R, 1·35 in.—*Ardrossan, Kirkhall* (XIV). R, 1·56 in., 1·30 in. of which fell in about three and-a-half hours after midday.

6th.—*Lancaster, Southfield* (VIII). R, 2·80 in., the heaviest fall in 24 hours for upwards of 20 years.—*Dumfries, Crichton Institution* (XII). T and L at 6 p.m.—*Forsinard, H.R.S.* (XIX). T and L in evening.—*Miltown Malbay* (XX). S.W. gale.

7th.—*Winslow, Addington* (III). Fog.—*Douglas, Victoria Road* (XI). S.W. gale.—*South Uist, Ardkenneth* (XVIII). R, 1·45 in.—*Clifden, Kylemore* (XXII). Severe W. gale, with heavy R, 1·60 in.

8th.—*Littlehampton* (II). Gale.—*West Buckland, Devon County School* (V). Much T.—*Thirendale* (IX). ·52 in. of R fell in 40 minutes.—*Shap* (X). Strong gale.—*Derrycastle* [*Killaloe*] (XX). Stiff S.W. wind.

8th—11th.—*Balquhidder, Stronvar* (XVI). High wind amounting to a gale on 9th.

9th.—*Gloucester, Maisemore Lock* (VI). High wind and squalls from S.W.—*Chester, Rowton Grange* (VIII). Heavy R at night, 1·86 in.—*Lymm, Statham Lodge* (VIII). R, 1·65 in.—*Aigburth, Kelton* (VIII). R, 1·37 in.—*Hest Bank* (VIII). R, 2·04 in. in about 14 hours.—*Sedbergh, Brig Flatts* (IX). R, 2·23 in.; the heaviest daily fall in 10 years.—*Llandovery* (XI). Very stormy. R, 1·10 in.; a heavy flood in the Towey.—*Rhayader, Nantgwillt* (XI). Heavy R, 1·60 in. and T.—*Rosset, Trevalyn Hall* (XI). Between 8 p.m. and 7 a.m. on 10th, 1·86 in. of R fell.—*Douglas, Victoria Road* (XI). S.W. gale, and 1·00 in. of R.—*Watten H.R.S* (XIX). E. gale at night.—*Derrycastle* [*Killaloe*] (XX). Very high S.W. to S.E. wind.—*Broadford, Hurdlestown* (XX). Between 11 a.m. and 11·20 a.m. ·33 in. of R fell; it came down so thick that one could hardly see 40 yards ahead.—*Lauderdale* (XXII). S.W. gale.—*Ramelton, Killygarvan* (XXIII). Severe S. gale.

9th and 10th.—*Blackpool, South Shore* (VIII). R 2·20 in.

10th.—*Isleworth, Dunster Lodge* (I). As the sun was setting it ap-

peared large and red, and between it and two observers there appeared to be another sun somewhat smaller and paler. The real sun sank out of sight a minute before the other disappeared. There was some amount of haze a little earlier, and a thick ground mist after sunset.* —*Diss* (IV). S. gale.—*Torquay, Babbacombe* (V). S. gale at night.—*Ketton Hall* [*Stamford*] (VII). Half a gale early.—*Forsinard H.R.S.* (XIX). Gale.—*Derrycastle* [*Killaloe*] (XX). Stiff S.W. wind all day.—*Newcastle West* (XX). Gale.

11th.—*Llandovery* (XI). Hoar frost.—*Douglas, Victoria Road* (XI). S.W. gale.—*Melrose* (XII). S.W. gale.

12th.—*Ashburton, Druid* (V). Fog.—*Torquay, Babbacombe* (V). Fog.

13th.—*Winslow, Addington* (III). Heavy dew.—*Llandovery* (XI). Hoar frost.—*Dumfries, Crichton Institution* (XII). Fog.

14th.—*Ashburton, Druid* (V). Heavy dew; fog in the valleys.—*Derrycastle* [*Killaloe*]. (XX). Stiff N. and N.E. wind.

15th.—*Drumnadrochit* (XVIII). Sharp frost.—*Derrycastle* [*Killaloe*] (XX). Fog.

15th—19th.—*Forres H.R.S.* (XVII). Night frosts.

16th.—*Torquay, Babbacombe* (V). E. gale.—*Biggar, Cambus Wallace* (XIV). Severe frost, injuring potatoes.—*Cupar Angus* (XVI). The first frost of the season.—*Dalnaspidal H.R.S.* (XVI). Fog.

16th and 17th.—*Dorking, Abinger* (II). Sharp frosts, destroying French beans, &c.—*Melrose* (XII). Sharp frost.—*North Esk Res.* [*Penicuick*] (XIII). Ice.

18th.—*Torquay, Babbacombe* (V). L.

20th.—*Dalnaspidal H.R.S.* (XVI). Aurora.—*Forres H.R.S.* (XVII). Fog.

21st.—*Torquay, Babbacombe* (V). E.N.E. gale.—*Fermoy* (XX). Heavy gales.

22nd—*Torquay, Babbacombe* (V). N.E. gale.—*Llanfrechfa Grange* (XI). Heavy N.E. gale.—*Llechryd, Castle Malgwyn* (XI). Frost.

23rd.—*Ketton Hall* [*Stamford*] (VII). Hoar frost early.

24th—26th.—*Dumfries, Crichton Institution* (XII). Fog each day.

25th.—*Reigate, Holmfels* (II). Much fog.

26th.—*Burgess Hill, Prescott* (II). R, 2·10 in.—*Miltown Malbay* (XX). Sheet L; heavy S.W. gale and heavy R, 1·16 in.

---

* An interval of "about a minute" is quite insufficient for this to have been a mock sun, as that would probably be on a halo of 22°; it seems more likely that it was a reflection on the layer of ground mist. The record is very unusual and interesting.—Ed.

27th.—*Tenterden* (II). High wind.—*Emsworth, Redlands* (II). S.W. to W. gale from 11 a.m. to 7 p.m.—*Torquay, Babbacombe* (V). S.W. gale.—*Ashburton, Druid* (V). Fog ; T.—*Gloucester, Maisemore Lock* (VI). S.W. gale.—*Derby, Elvaston* (VII). S.W. gale.—*North Esk Res.* [*Penicuick*] (XIII). L at night.—*Balquhidder, Stronvar* (XVI). T and L at night.—*Drumnadrochit* (XVIII). Distant T.—*Watten H.R.S.* (XIX). S gale at night.

27th and 28th.—*Loch Shiel, Glenaladale* (XVIII). Very stormy from N.W., with H, T and L.

28th.—*Coupar Angus* (XVI). A gale causing great destruction.—*Watten H.R.S.* (XIX). S.W. gale all day.—*Lawderdale* (XXII). S.W. gale.

29th.—*Ashburton, Druid* (V). Fog.

29th and 30th.—*Clifden, Kylemore* (XXII). Strong W. gale.

30th.—*Melrose* (XII). Distant T.—*Forres H.R.S.* (XVII). Fog.—*Broadford, Hurdlestown* (XX). S.W. gale.

OCTOBER.

1st.—*Finchley, Etchingham Park* (I). L and T.—*Pinner Hill* (I). L and T.—*Littlehampton* (II). Squally, L in evening.—*Emsworth, Redlands* (II). TS ; strong S.E., to S.W. wind.—*Basingstoke, Sherborne St. John* (II). TS.—*Winslow, Addington* (III). Severe TS.—*Oxford* (III). TS at night.—*Northampton* (III). T and L.—*Northampton, Sedgebrooke* (III). Heavy storm of R, with T and L at 8 p.m.—*Sandy Rectory* (III). Intensely hot day ; TS at night.—*Salisbury, Alderbury* (V). T and L.—*Calne, Compton Bassett* (V). TS and heavy R, ·41 in.—*Torquay, Babbacombe* (V). Fog; T; N.W. gale.—*Ashburton, Druid* (V). Heavy R and fog all day.—*Teignmouth, Woodway* (V). T.—*Bishops Castle, More Rectory* (VI). R (1·46 in.) almost incessant from 9 a.m. on 1st to 3 a.m. on 2nd.—*Ketton Hall* [*Stamford*] (VII). L and T.—*Derby, Elvaston* (VII). Stormy with T and L.—*East Layton* [*Darlington*] (IX). TS with heavy R, 1·32 in.—*Melrose* (XII). T at 4 a.m. ; L in evening.—*North Esk Res.* [*Penicuick*] (XIII). L.—*Newcastle West* (XX). S. gale.

2nd.—*Dorking, Abinger* (II). Heavy TS to W., and exceptionally vivid L.—*Wallington* (II). L.—*Broadford, Hurdlestown* (XX). S.W. gale.—*Miltown Malbay* (XX). S. gale, T and L.

3rd.—*Babbacombe* (V). Fog.—*Ashburton, Druid* (V). Fog.—*Leicester, Town Hall Square* (VII). ·18 in. of R in three-and-a-half minutes, at

the rate of 3·08 in. per hour; and ·46 in. in 15 minutes, at the rate of 1·84 in. per hour.

4th.—*Babbacombe* (V). TS.—*Dumfries, Crichton Inst.* (XII). Fog.

4th—7th.—*Sunderland, West Hendon House* (X). Continous fog from middle of 4th, to 1 a.m. on 7th.

5th.—*East Layton,* [*Darlington*] (IX). Fog.—*Melrose* (XII). Fog.

5th and 6th.—*Ashburton, Druid* (V). Fog.

6th.—*Rendlesham* (IV). TS.—*Diss* (IV). T, H, R and S.—*Harrogate* (IX). T and L.—*East Layton* [*Darlington*] (IX). T; great darkness in afternoon.—*Dumfries, Crichton Institution* (XII). Fog.—*Melrose* (XII). Severe TS.—*North Esk Res.* [*Penicuick*] (XIII) T and L, 2 to 4, and 6 to 8 p.m.—*Edinburgh* (XIII). Severe TS, ·92 in. of R fell in 47 minutes.—*Balquhidder, Stronvar* (XVI). T and L from 5 p.m. to 9 p.m.—*Dalnaspidal, H.R.S.* (XVI). T, L and R.—*Forres H.R.S.* (XVII). Fog.

6th and 7th.—*Watten H.R.S.* (XIX). Fog.

6th—8th.—*Shap, Copy Hill* (X). Dense fog.

7th.—*Rendlesham* (IV). S.E. gale.—*Teignmouth, Woodway* (V). T.—*Derby, Elvaston* (VII). T with heavy showers.—*East Layton* [*Darlington*] (IX). Fog.—*Melrose* (XII). T.—*Ballantrae, Glendrishaig* (XIV). Fog.

7th and 8th.—*Dorking, Abinger* (II). Fog.

8th.—*Reigate, Holmfels* (II). Dense fog.—*Littlehampton* (II). Fog.—*Maresfield, Forest Lodge* (II). 1·01 in. of R fell between 1·30 p.m. and 2·30 p.m.—*Winslow, Addington* (III). Dense fog.—*Ipswich, Belstead Hall* (IV). Extraordinary local storm; 1·80 in. of R fell in two hours, the greater part of it fell in half-an-hour.—*Ipswich, Bishops Hill* (IV). Very severe TS from 3 p.m. to 4.30 p.m.; many parts of the town were flooded, and a windmill was struck by L.—*Beccles, Ellough* (IV). T.—*Cirencester, Further Barton* (VI). Fog.—*Gloucester, Maisemore Lock* (VI). Dense fog.—*Ross, The Graig* (VI). Dense fog.—*Ketton Hall* [*Stamford*] (VII). Dense fog.—*Dumfries, Crichton Inst.* (XII). Fog.—*Derrycastle* [*Killaloe*] (XX). Fog.—*Miltown Malbay* (XX). Blood red sun, followed by stormy weather.—*Lauderdale* (XXII). Gale from S.

9th.—*Diss* (IV). Gale.—*Calne, Compton Bassett* (V). Dense fog.—*Babbacombe* (V). S. gale.—*Douglas, Victoria Road* (XI). S.E. gale.—*Dalnaspidal H.R.S.* (XVI). Fog.—*Broadford, Hurdlestown* (XX). Severe S. gale.—*Miltown Malbay* (XX). S. gale with H.

10th.—*Emsworth, Redlands* (II). Strong S.W. squalls; distant T. —*Cirencester, Further Barton* (VI). T and L.

9th and 10th.—*Newcastle West* (XX). Gale from S.E., veering to W.

10th.—*Clifden, Kylemore* (XXII). Strong W. gale.

11th.—*Melrose* (XII). S.W. gale.

12th.—*Littlehampton* (II). S. gale.—*Emsworth, Redlands* (II). S.W. to S.E. gale.—*Northampton* (III). S.W. gale and heavy R.—*Diss* (IV). Gale from S.—*Babbacombe* (V). S. gale.—*Langtree* (V). H and T.—*Derby, Elvaston* (VII). High S.W. wind, with H and slight T.—*Shap* (X). Strong gale with heavy R, 1·72 in.—*Llandovery* (XI). H.—*Melrose* (XII). ·90 in. of R in eight hours.—*Newcastle West* (XX). H and L.

13th.—*Winslow, Addington* (III). T.—*Weybread Vicarage* [*Harleston*] (IV). TS.—*Babbacombe* (V). H; lunar rainbow.—*Langtree* (V). H.—*Llanfrechfa* (XI). T.

14th.—*Ross, The Graig* (VI). Gale.—*Broadford, Hurdlestown* (XX). Severe S.W. gale.—*Miltown Malbay* (XX). Heavy S. gale, R ·80 in.

14th and 15th.—*Holsworthy, Clawton* (V). Very severe gale, doing much damage to trees; R in the two days, 1·74 in.—*Lauderdale* (XXII). High floods.

14th—16th.—*Chagford, Batworthy* (V). R 5·00 in.—*Douglas, Victoria Road* (XI). Heavy S.E. gale.—*Newcastle West* (XX). Violent gale, and 2·28 in. R in the three days.—*Tuam, Gardenfield* (XXII). 2·15 in. R fell between 4.30 p.m. of 14th and 10 a.m. of 16th (of which 1·50 in. fell before 4.30 p.m. of 15th), causing the greatest flood, with one exception, in about 26 years.—*Killygarvan* (XXIII). Heavy R (2·11 in.) and N. gales, causing floods.

14th—17th.—*Neath, Fairy Land* (XI). R 3·33 in. in the four days.

15th.—**London, Lansdowne Crescent* (I). S.S.W. gale.—*Finchley, Etchingham Park* (I). Tremendous gale from S.W.—*Dorking, Abinger* (II). Strong S.W. gale.—*Keston Tower* (II). Heavy S.W. gale.—*Littlehampton* (II). W.S.W. gale, a boat washed ashore.—*Emsworth, Redlands* (II). Violent S.W. gale.—*Northampton* (III). S.E. gale.—*Weybread Vicarage* [*Harleston*] (IV.) Hurricane.—*Diss* (IV). Heavy S. gale.—*Calne, Compton Bassett* (V). Strong W. gale with heavy R, 1·10 in. *Ashburton, Druid* (V). Heavy storm, 50 trees blown down, R 1·12 in.—*St. John's* [*Devonport*] (V). Heavy W. gale for 30 hours.—*Cirencester, Further Barton* (VI). Gale, with very low pressure.—*Macclesfield*

* Respecting this gale, see *Quar. Jour. Roy. Met. Soc.* Vol. xiii. p. 1.

(VIII). Gale.—*Llanfrechfa* (XI). Heavy S.W. gale all day, with much damage to shipping.—*Newton, Oystermouth* (XI). Great storm.—*Clarbeston Road, Penty Parc* (XI). S.W. gale, with heavy R., 2·07 in.—*Builth, Lanwrtyd Wells* (XI). R, and severe gale all day, 1·84 in.—*Llechryd, Fern Hill* (XI). Heavy S.W. gale, with great rain (2·49 in.), causing such a flood in the river Tivy as had not occurred for 25 years. The river at Llechryd Bridge rose nearly 20 ft., being about 6 ft. over the top of the bridge; and low-lying houses had from 6 ft. to 10 ft. of water in them. In some cases the inmates had to be rescued through holes in the roofs. The water was 8 ft. deep on the road; post had to be conveyed across the river in a coracle; in front of observer's house there was a lake 400 yards broad; hedges were completely covered; the bridge was under water four days.—*Llanidloes, Broomcliffe* (XI). A very heavy flood in the Severn, said to be the largest for 30 years.—*Dunkeld, H.R.S.* (XVI). High E. wind.—*Nenagh, Castle Lough* (XX). R 1·64 in., the heaviest fall since September 26, 1875.—*Broadford, Hurdlestown* (XX). Severe N.W. gale. *Miltown Malbay* (XX). Strong N. gale.—*Balbriggan* (XXI). R 2·08 in., the greatest fall in 21 years, except that of October 26th, 1880, when 2·77 in. fell; gale at night.—*Edgworthstown, Currygrane House* (XXI). R 1·41 in., accompanied by a storm of considerable violence.—*Clifden, Kylemore* (XXII). Very violent N.W. gale.

15th and 16th.—*Wallington* (II). Hurricane; total motion between 9 a.m. and 9 p.m. of 15th, 295 miles.—*Babbacombe* (V). Heavy W.S.W. gales, injuring vegetation.—*Crewkerne, Bincombe House* (V). Heavy W. gale.—*Cupar Angus* (XVI). Heavy R (1·68 in.), with a hurricane from S.W.—*Kilconnell, Woodlawn* (XXII). High winds, and 24 hours constant R, 2·20 in.

16th.—*London, Lansdowne Crescent* (I). Heavy R (·29 in.) between 2.30 p.m. and 3.30 p.m.—*Lewes, Iford* (II). Gale.—*Rendlesham* (IV). S.W. gale.—*Stoke Ferry, Oxburgh Rect.*) (IV). The Rev. W. H. Brown writes: "About 9 a.m. I was looking from a window, 12 to 14 yards off, into a stable-yard—about 28 yards square, chiefly gravelled, and intersected by several lines of earthenware drain pipes containing a soft water cistern and a cemented cesspool—when a mass of fire burst out with a loud crash. The noise was as if a large quantity of gravel were shot out of a cart, and did not resemble the rolling of thunder. The fire was intensely bright at its centre, which was about 4 or 5 ft. from the ground; coruscations were thrown off in every direction. It did not seem to rest upon the ground or to

start from it. The mass of fire appeared at least 2 yards long. The phenomenon lasted an inappreciably short time. I went out directly after and found that no injury had been done; not even the gravel seemed displaced. I was looking W. when I saw it; the gardener was facing S.E., and he gave an account similar to mine."—*Ross, The Graig* (VI). Severe gale.—*Broadford, Hurdlestown* (XX). Gale from N.—*Lawderdale* (XXII). N.E. gale.

16th—18th.—*Miltown Malbay* (XX). Violent N.E. gale.

17th.—*Ross, The Graig* (VI). Heavy R, 1·18 in.—*Melrose* (XII). T and L.

18th.—*Wallington* (II). Fog.—*Littlehampton* (II). L.—*East Layton* [*Darlington*] (IX). Gale.—*Shap* (X). Dense fog.

18th and 19th.—*Derrycastle* (XX). Fog.

19th.—*Finchley, Etchingham Park* (I). L.—*Pinner Hill* (I). L and T.—*Dorking, Abinger* (II). TS to westward.—*Farnham, The Bourne Vic.* (II). TS more or less severe all night, with heavy R and H in sharp showers, R 1·33 in.—*Wallington* (II). L.—*Littlehampton* (II). T L, R and H.—*Emsworth, Redlands* (II). Violent TS.—*Fleet, Claremont House* (II). Violent TS all night, with heavy H and R; L intensely vivid, blue and rose colour, very large H stones; between 10 p.m and 9 a.m. 1·20 in. of R fell.—*Winslow, Addington* (III). Heavy TS.—*Henley-on-Thames, Assenton* (III). TS at night.—*Calne, Compton Bassett* (V). Heavy R, 1·15 in., causing extensive floods.—*Beaminster* (V). TS.—*Babbacombe* (V). TS.—*Nottingham, Strelley* (VII). TSS at night.—*Macclesfield* (VIII). L at 5.40 p.m.

19th and 20th.—*Oxford* (III). TSS.—*Northampton* (III). T and L.—*Salisbury, Alderbury* (V). T and L.—*Shaftesbury* (V). T.—*Crewkerne, Bincombe House* (V). Severe TSS.

19th—21st.—*Horncastle, Bucknall* (VII). Much T.

20th.—*Emsworth, Redlands* (II). Vivid L and distant T.—*Sudbury* (IV). TS.—*Rendlesham* (IV). L and R.—*Beccles, Ellough* (IV). T.—*Diss* (IV). L; whitethorn in full and fragrant blossom, with scarlet berries on the same twig.—*Downham Market, West Dereham* (IV). Severe TSS.—*Downham, Crimplesham* (IV). R, 1·58 in.—*Calne, Compton Bassett* (V). T and L.—*Teignmouth, Woodway* (V). Heavy storm of R, H, and T at 1.30 p.m.—*Cirencester, Further Barton* (VI). T and L.—*Cheltenham* (VI). TS.—*Burton-on-Trent* (VI). TS.—*Melton Mowbray, Coston* (VII). Severe TSS at 3.30 a.m. and 4.30 p.m.—*Ketton Hall* [*Stamford*] (VII). Fog, R and T.—*Nottingham, Beeston Fields* (VII). TS from 4.30 p.m. to 7 p.m.—*Nottingham, Strelley* (VII). TSS

in afternoon; very violent T and L from 5.30 p.m. to 6.30 p.m. R ·58 in.—*Mansfield* (VII). T and heavy R.—*Derby, Findern* (VII). TS with heavy R.—*Derby, Elvaston* (VII). Very severe TSS, with violent R and H nearly all day; 1·40 in. fell.—*East Layton* [*Darlington*] (IX). T.—*Shap* (X). T.—*Melrose* (XII). L.

21st.—*Reigate, Holmfels* (II). Dense fog.—*Wallington* (II). Very thick white fog.—*Winslow, Addington* (III). Dense fog.—*Melton Mowbray, Coston* (VII). Very foggy.—*Barnard Castle, Whorlton* (X). T.—*North Esk Res.* [*Penicuick*] (XIII). Aurora.—*Cushendun* (XXIII). Dahlias blackened by frost.

21st and 22nd.—*Wakefield, Stanley Vicarage* (IX). Fog.

23rd.—*Babbacombe* (V). E. gale and H.—*Sunderland, West Hendon House* (X). Extremely dense fog.—*Shap* (X). Dense fog.

24th.—*Northampton* (III). Gale at night.—*Cheltenham* (VI). Swallows seen.

24th—27th.—*Babbacombe* (V). E.N.E. gales.

25th.—*Ashburton, Druid* (V). Fog.

26th.—*Emsworth, Redlands* (II). Squally N.E. gale.

27th.—*Ashburton, Druid* (V). Fog.

28th.—*Wallington* (II). Dense fog.

29th.—*Dumfries, Crichton Inst.* (XII). Fog.—*Dalnaspidal H.R.S.* (XVI). Fog.

29th—31st.—*Rendlesham* (IV). Fog.

30th.—*Emsworth, Redlands* (II). Distant T.—*Babbacombe* (V). Fog.

31st.—*Reigate, Holmfels* (II). Dense fog.—*Wallington* (II). Apple-tree in blossom.

NOVEMBER.

1st.—*Northampton* (III). Summer weather,—*Watten H.R.S.* (XIX). S 6 in. to 8 in. deep.

2nd.—*Gloucester, Maisemore Lock* (VI). Fog.—*Llechryd, Castle Malgwyn* (XI). Frost.—*St. Andrews* (XVI). Aurora.—*Watten H.R.S.* (XIX). S.E. gale.—*Ramelton, Killygarvan* (XXIII). S.W. gale.

3rd.—*Reigate, Holmfels* (II). Thick fog.—*Keston Tower* (II). Gale.—*Winslow, Addington* (III). Plants blackened by frost.—*Northampton* (III). Gale.—*Torquay, Babbacombe* (V). S.S.W. gale.—*Ashburton, Druid* (V). Torrents of R in afternoon.—*Ketton Hall* [*Stamford*] (VII). Strong gale.—*Derby, Elvaston* (VII). S. gale.—*Shap, Copy Hill* (X).

Strong gale with heavy R, 1·40 in.—*Llechryd, Fern Hill* (XI). Gale. —*Douglas, Victoria Road* (XI). S.E. gale.—*North Esk Reservoir* [*Penicuick*] (XIII). Aurora—*Stronvar* (XVI). Heavy R, 1·52 in.—*Miltown Malbay* (XX). H.

4th.—*South Uist, Ardkenneth* (XVIII). H.—*Ramelton, Killygarvan* (XXIII). H showers.

5th.—*Emsworth, Redlands* (II). S.W. to W. gale.—*Aighurth, Kelton* (VIII). R, 1·12 in.—*Scarborough* (IX). Heavy R, 1·04 in.—*East Layton* [*Darlington*] (IX). Terrific gale, with the heaviest R (1·78 in.) remembered.—*Darlington, Cleveland Parade* (X). R 1·55 in.—*Llechryd, Castle Malgwyn* (XI). Heavy R, 1·38 in.—*Llechryd, Fern Hill* (XI). River Tivy in high flood.—*Douglas, Victoria Road* (XI). N.W. gale with heavy R, 1·23 in.—*Melrose* (XII). Gale with heavy R, 1·78 in.

5th and 6th.—*Wolsingham* (X). R 4·40 in. ; nearly all falling in 36 hours—*Morpeth, Bothalhaugh* (X). R 3·18 in.—*Pawston* [*Coldstream*] (X). Very heavy R, causing the River Bowmont to rise higher than it had done since September, 1880.—*Newton, Oystermouth* (XI). Violent storm, followed by hard frost.

6th.—*Littlehampton* (II). Gale.—*Winslow, Addington* (III). Heavy flood.—*Babbacombe* (V). Parhelia.—*Ashburton, Druid* (V). Heavy storm of R and wind.—*Falmouth Observatory* (V). Very persistent R all day; 1·75 in.—*Ross, The Graig* (VI). Violent storm early. *Derby, Elvaston* (VII). High E. to N.W. wind.—*Harrogate* (IX). S.—*Shap, Copy Hill* (X). S on the Mardale Hills.—*Stronvar* (XVI). Gale —*Forres H.R.S.* (XVII). H and sleet.

7th.—*Gloucester, Maisemore Lock* (VI). Fog.

8th.—*Reigate, Holmfels* (II). Thick fog.—*Winslow, Addington* (III). Sharp frost.—*Babbacombe* (V). H.—*Cheltenham* (VI). All tender plants killed by frost.—*Ross, The Graig* (VI). Sharp frost, dahlias blackened. —*Macclesfield* (VIII). Slight frost.—*Llechryd, Castle Malgwyn* (XI). Heavy R, 1·42 in.

9th.—*Mayfield Vicarage* (II). A very splendid and perfect lunar rainbow at 6.40 p.m. The sky in the S.E. in the neighbourhood of the moon was perfectly clear, while ink-black storm clouds covered the N.W. sky against which the silvery bow, with all the prismatic colours, was very remarkable.—*Babbacombe* (V). Solar halo.—*Crewkerne, Bincombe House* (V). R, 1·16 in. between 1.30 a.m., and 8.30 a.m.—*Llechryd, Fern Hill* (XI). River Tivy in high flood.—*Douglas, Victoria Road* (XI). S.E. gale.

10th.—*Babbacombe* (V). N.E. gale.

11th.—*Melton Mowbray, Coston* (VII). Floods out.—*Shap, Copy Hill* (X). Dense fog.—*Dumfries, Crichton Inst.* (XII). Fog.—*Stronvar* (XVI). S 1 in. deep.

12th.—*Miltown Malbay* (XX). N.W. gale.

13th.—*Rendlesham* (IV). Fog.—*Ashburton, Druid* (V). Fog in valleys.—*Llanerchymedd, Llwydiarth Esgob* (XI). S on mountains.

15th.—*Littlehampton* (II). Very squally at night.—*Barnard Castle, Whorlton* (X). Lunar rainbow.—*Drumnadrochit* (XVIII). S on hills. —*South Uist, Ardkenneth* (XVIII). Stormy with H, solar halo and mock suns.

16th.—*Meltham, Harewood Lodge* (IX). Lunar rainbow at 11 p.m. —*Shap, Copy Hill* (X). R, H, S and sleet.—*Stronvar* (XVI). Sleet.— *Forsinard H.R.S.* (XIX). S.

17th.—*Emsworth, Redlands* (II). Strong S.W. squalls.—*Weybread Vicarage* [*Harleston*] (IV). A large ripe strawberry gathered.—*Babbacombe* (V). W. gale.—*Douglas, Victoria Road* (XI). N.W. gale at night.—*Cawdor* [*Nairn*] (XVIII). H.

19th.—*Emsworth, Redlands* (II). Fog.—*Babbacombe* (V). Fog.

19th and 20th.—*Reigate, Holmfels* (II). Dense fog.—*Dumfries, Crichton Institution* (XII). Fog.

20th.—*Littlehampton* (II). Fog.—*Babbacombe* (V). Solar halo.— *South Uist, Ardkenneth* (XVIII). Heavy fog at sea.

20th—22nd.—*Builth, Llanwrtyd Wells* (XI). Much fog in the valley.

21st.—*Stourport, Lincombe Lock* (VI). Fog.

21st and 22nd.—*Gloucester, Llanthony Lock* (VI). Fog.

21st—23rd.—*Oxford* (III). Dense fogs.

22nd.—*Canterbury, Harbledown* (II). T and L at 11 p.m.— *Northampton* (III). Dense fog.—*Diss* (IV). Ripe strawberries gathered in the garden.—*Worcester, Diglis Lock* (VI). Fog.—*Worcester, Bevere Lock* (VI). Fog.—*Shap, Copy Hill* (X). Dense fog all day.—*Dumfries, Crichton Inst.* (XII). Foggy.

22nd—25th.—*Wallington* (II). Dense fog daily.—*Wakefield, Stanley Vic.* (IX). Much fog.

23rd.—*Reigate, Holmfels* (II). Dense fogs.—*Gloucester, Maisemore Lock* (VI). Fog.—*Belfast, New Barnsley* (XXIII). Fog.

24th.—*Glendrishaig* (XIV). Fog.—*Derrycastle* [*Killaloe*] (XX). Fog.

24th—27th.—*Rendlesham* (IV). Fog daily.—*Melton Mowbray, Coston* (VII). Very foggy.

25th.—*Winslow, Addington* (III). Fog.—*Ketton Hall* [*Stamford*] (VII). Dense fog.—*Macclesfield* (VIII). Fog.—*Shap, Copy Hill* (X). Dense fog all day.

26th.—*Ashburton, Druid* (V). Thick fog.—*Douglas, Victoria Road* (XI). Sea fog.—*Melrose* (XII). Dense fog.—*Broadford, Hurdlestown* (XX). Dense fog.—*Ramelton, Killygarvan* (XXIII). Dense fog.

27th.—*Winslow, Addington* (III). Fog.—*Ross, The Graig* (VI). Fog.—*Douglas, Victoria Road* (XI). Dripping fog all day.—*Derrycastle* [*Killaloe*] (XX). Fog.

28th.—*Reigate, Holmfels* (II). Thick fog.—*Lower Walmer* (II). Swallows seen round Walmer Castle.—*Ashburton, Druid* (V). Thick fog in valley.—*Worcester, Diglis Lock* (VI). W.S.W. gale.—*Douglas, Victoria Road* (XI). S.W. Gale.—*Drumnadrochit* (XVIII). Strong S.W. gale.—*Ennis* (XX). Heavy showers and H.

28th—30th.—*Miltown Malbay* (XX). Squally and cold.

29th.—*Forres H.R.S.* (XVII). H and sleet.—*Ramelton, Killygarvan* (XXIII). W. by N. gale.

29th and 30th.—*Babbacombe* (V). Parhelia.—*Cushendun* (XXIII). Sleet, with S on mountains.

30th.—*Ketton Hall* [*Stamford*] (VII). Sleet and S.—*Shap, Copy Hill* (X). S.—*Llandovery* (XI). H.—*Llechryd, Castle Malgwyn* (XI). H storms.—*Douglas, Victoria Road* (XI). Heavy H storms.—*North Esk Reservoir* [*Penicuick*] (XIII). Aurora.—*Forres H.R.S.* (XVII). H showers.—*Drumnadrochit* (XVIII). S.—*Cawdor* [*Nairn*] (XVIII). S. *Forsinard H.R.S.* (XIX). Sleet and S.—*Watten H.R.S.* (XIX). R, H and S, 6 in. deep next morning.

DECEMBER.

1st.—*Torquay, Babbacombe* (V). H; parhelia.—*Cirencester, Further Barton* (VI). Sleet and S.—*Derby, Elvaston* (VII). Stormy, with R, sleet, and S.—*Meltham, Harewood Lodge* (IX). First S on hills.—*Whitehaven* (X). Heavy R at 5 p.m., and strong N.W. gale, at 5.48 p.m., a blinding flash of L, followed immediately by a terrible crash of T, then H as large as small peas for 10 minutes. At 7 p.m. sky clear, but gale still blowing.—*Builth, Llanwrtyd Wells* (XI.) H.—*Builth, Abergwessin* (XI). H and S.—*Port Madoc* (XI). S.—*Douglas, Victoria Road* (XI). Terrific N.W. gale, with H.—*Melrose* (XII). Stormy, with S and L. *North Esk Reservoir* [*Penicuick*] (XIII). Gale and S.—*Balquhidder, Stronvar* (XVI). S $1\frac{1}{2}$ in. deep.—*Forres*

H.R.S. (XVII). Severe S storm.—*Strome Ferry, H.R.S.* (XVIII) E.N.E. gale with S.—*Drumnadrochit* (XVIII). S storm and high wind.—*Watten H.R.S.* (XIX). S 6 in. to 8 in. deep.—*Colloonev, Markree* (XXII). S.—*Ramelton, Killygarvan* (XXIII). Squally with S.

2nd.—*Benenden* (II). S.—*Woodbridge, Melton* (IV). S.—*Rendlesham* (IV). Three inches of S between 0·30 p.m. and 2 p.m.—*Diss* (IV). Much S; temperature 19°.—*Llandovery* (XI). S.—*Llechryd, Castle Malgwyn* (XI). S all day.—*Builth, Abergwessin* (XI). S.—*Douglas, Victoria Road* (XI). S.—*Cushendun* (XXIII). S 1 in. deep.—*Londonderry, Knockan* (XXIII). S 3 in. deep.

3rd.—*Builth, Abergwessin* (XI). Sleet.—*Glendrishaig* (XIV). R and S.

4th.—*Rendlesham* (IV). Sleet and S.—*Diss* (IV). Heavy S, with half a gale from S.—*Babbacombe* (V). Fog.

5th.—*Pinner Hill* (I). Fog.—*Langtree* (V). Much fog.—*Burton-on-Trent* (VI). W. gale.—*Builth, Llanwrtyd Wells* (XI). Fog.—*Dalnaspidal H.R.S.* (XVI). Fog, R, and S.—*Loch Shiel, Glenaladale* (XVIII). R 2·23 in.— *Tralee, Castlemorris* (XX). Fog.—*Derrycastle,* [*Killaloe*] (XX). Dense fog all day.

6th.—*Babbacombe* (V). W.S.W. gale.—*Derby, Elvaston* (VII). S.W. gale.—*Macclesfield* (VIII). H.—*N. Esk Res.* [*Penicuick*] (XIII). T and L.

7th.—*Ashburton Druid* (V). H; gale at night, with torrents of R, 1·29 in.—*St. John's* [*Devonport*] (V). Heavy S.W. gale.—*East Layton* [*Darlington*] (IX). S showers.—*Landovery* (XI). H storm.—*Llechryd, Castle Malgwyn* (XI). H storms, T, L, and R, 1·00 in.—*Stronvar* (XVI). Six inches of S.—*Strome Ferry H.R.S.* (XVIII). E. gale.—*Newcastle West* (XX). Great storm from W., continuous for 24 hours, violent for 12 hours, uprooting and damaging many trees.—*Buncrana, Rockfort* (XXIII). H showers and squalls.

8th.—**London, Lansdowne Crescent* (I). Violent S.W. gale, with showers of R and H.—*Pinner Hill* (I). Gale with T and L.—*Wallington* (II). Fearful gale.—*Hythe* (II). Violent gale with heavy R squalls. *Keston Tower* (II). S.W. gale.—*Littlehampton* (II). Severe S. gale.—*Hailsham* (II). High wind, R and T.—*Emsworth, Redlands* (II). Violent S.W. gale.—*Reading* (II). Great storm of wind, R and H.—*Winslow, Addington* (III). Gale and heavy R, ·68 in., causing a flood on the following day.—*Ipswich, Bishop's Hill* (IV). Strong S. to S.W. gale, with heavy R, and very low pressure.—*Rendlesham* (IV). S.S.W. gale.—*Weybread Vicarage* [*Harleston*] (IV). A hurricane, doing much damage.—*Diss* (IV). Furious S.E. to S.W. gale, with very low pres-

Respecting low barometer on this day, see *Quar. Jour. Roy. Met. Soc.*

sure.—*Downham Market, West Dereham* (IV). Gale, H, L, and T.—*Calne, Compton Bassett* (V). Boisterous wind and heavy R, ·95 in.—*Babbacombe* (V). Severe S.S.W to W. gale; max. velocity 53 miles from 5 to 6 a.m.; pressure at 7 p.m. the lowest observed since December 4th, 1876; H, S, and L.—*Ashburton, Druid* (V.) H and L.—*St. John's* [*Devonport*] (V). W. gale all day, T at 3 p.m.—*Temple Combe, Stowell Rectory,* (V). Violent gale, distant L.—*Bath, Queen's Parade* (V). H, T, and very heavy gale.—*Cirencester, Further Barton*(VI). Violent gale of long continuance, with H.—*Gloucester, Maisemore Lock* (VI). T, H and S.—*Cheltenham* (VI). Gale all day, with S, H and R, and very low pressure.—*Craven Arms* (VI). Pressure the lowest recorded here.—*Ketton Hall* [*Stamford*] (VII). Strong W. gale, R and sleet.—*Nottingham, Beeston Fields* (VII). S.W. gale with R, S and H.—*Derby, Elvaston* (VII). Terrific S.W. gale.—*Chester, Christleton Hall* (VIII). Fearful S.W. gale, wrecking many vessels and doing much damage to buildings.—*Grange, Nutwood* (VIII). Pressure extremely low, but there was nothing approaching a gale, and very little R; no trees blown down or serious damage done.—*Stainborough, Wentworth Castle* (IX). Pressure exceptionally low.—*Wakefield, Stanley Vicarage* (IX). Gale, with the lowest pressure recorded here.—*Barnard Castle, Whorlton* (X). S.W. gale with S and R.—*Shap, Copy Hill* (X). Gale with R and S, 1·26 in.—*Llandovery* (XI). Heavy gale and R, 1·10 in.—*Builth, Llanwrtyd Wells* (XI). Fearful storm, with H, R and S, 1·35 in.—*Forres H.R.S.* (XVII). S, ·42 in.—*Strome Ferry H.R.S.* (XVIII). N.W. gale.—*Watten H.R.S.* (XIX). Gale with S, 2 in.—*Tralee, Castlemorris* (XX). Heavy S.W. gale.—*Tipperary, Henry Street* (XX). Great gale; R ·85 in.—*Derrycastle* [*Killaloe*] (XX). Severe W. gale, uprooting many trees, R 1·06 in.—*Nenagh, Castle Lough* (XX). Severe gale from W, with heavy R (1·03 in.), and TS with vivid L.—*Broadford, Hurdlestown* (XX). Heavy W. gale, doing much damage to trees and houses, and a very high tide on the Shannon.—*Galway, Queen's College* (XXII). Heavy squalls; T and heavy showers.—*Ramelton, Killygarvan* (XXIII). Very heavy gale, with remarkably low pressure.—*Buncrana, Rockfort* (XXIII). Violent squalls and sleet.

8th and 9th.—*Oxford* (III). High wind, H and S.—*Burton-on-Trent* (VI). Strong W. gale.—*Port Madoc* (XI). N.W. gale.

8th and 10th.—*Macclesfield* (VIII). Strong gales, with T on 10th.—*Douglas, Victoria Road* (XI). Very severe gale veering from S.E. to N.W., with remarkably low pressure on 8th.

9th.—*Finchley, Etchingham Park* (I). S.—*Canterbury, Harbledown*

(II). S.W. gale.—*Broxbourne* (III). Storm of wind, H, T and R.—*Diss* (IV). S.W. gale.—*Ashburton, Druid* (V). H, hills white.—*Gloucester, Maisemore Lock* (VI). W. gale.—*Builth, Llanwrtyd Wells* (XI). H.—*Melrose* (XII). S and L.—*Gorebridge, Middleton* (XIII). S 2 in. deep.—*Glendrishaig* (XIV). Great storm.—*Forres H.R.S.* (XVII). T and L.—*Strome Ferry H.R.S.* (XVIII). W gale.—*Banerana, Rockfort* (XXIII). Gale.

10th.—*Dorking, Abinger* (II). Heavy S storm.—*Corwen, Rhug* (XI). S and R, ·56 in.—*Stronvar* (XVI). Two inches of S.

11th.—*Rendlesham* (IV). Gale.—*Babbacombe* (V). W.S.W. gale.—*Aysgarth Vicarage* (IX). Heavy S on the hills.—*Douglas, Victoria Road* (XI.) Very heavy R (·80 in.), bursting street drains.—*Stronvar* (XVI). Two inches of S.—*Dalnaspidal H.R.S.* (XVI). Fog, S and sleet.—*Drumnadrochit* (XVIII). A luminous arch, resembling the "Northern arch," seen in the S for about three quarters of an hour about 11 p.m.—*Newcastle West* (XX). R, H and sleet.—*Galway, Queen's College* (XXII). Heavy squalls, with heavy H, T and L.—*Enniscoe* (XXII). H and T.

12th.—*Dover* (II). Heavy gale, sea rough, tide high, T and L.—*Babbacombe* (V). W.N.W. gale; lunar rainbow.—*Derby, Elvaston* (VII). L.

13th.—*Rendlesham* (IV). S.W. to W. gale.—*Babbacombe* (V). E. gale with heavy R, 1·37 in.—*Ashburton, Druid* (V). Heavy R, 1·65 in.—*Clifden, Kylemore* (XXII). S and R, ·64 in.

13th and 14th.—*Builth, Llanwrtyd Wells* (XI). S and R.—*Builth, Abergwessin* (XI) S.—*Derrycastle* [*Killaloe*] (XX). S and sleet.

14th.—*Winslow, Addington* (III). R, 1·17 in., causing the heaviest flood for years.—*Babbacombe* (V). Parhelion; W.S.W. gale.—*Burton-on-Trent* (VI). S storm.—*Meltown Mowbray, Coston* (VII). S and R all day.—*Derby, Elvaston* (VII). Very stormy with R and S.—*Wakefield, Stanley Vicarage* (IX). S storm.—*Shipley, Esholt* (IX). S.—*Aysgarth Vicarage* (IX). S 6 in. deep.—*East Layton* [*Darlington*] (IX). S showers.—*Barnard Castle, Whorlton* (X). S.—*Corwen, Rhug* (XI). S ·56 in.—*Douglas, Victoria Road* (XI). N.E. gale, with R and S all day.—*Melrose* (XII). S and H.—*Fermoy* (XX). Fog.

14th and 15th.—*Burton, Hoar Cross* (VI). Much S and R.

15th.—*Emsworth, Redlands* (II) Sleet squalls; L.—*Babbacombe* (V). Solar halo; L.—*St. John's* [*Devonport*] (V). T at 10 p.m.—*Cleobury Mortimer, Neen Savage* (VI). S.—*Tralee, Castlemorris* (XX). Fog.

16th.—*Wallington* (II). Very foggy.—*Gloucester, Maisemore Lock* (VI). Dense fog.—*Llechryd, Castle Malgwyn* (XI). Fog.

17th.—*Finchley, Etchingham Park* (I). S.—*Wallington* (II). Much fog: S 1 inch deep.—*Emsworth, Redlands* (II). R, S, and sleet.—*Winslow, Addington* (III). Dense fog.—*Rendlesham* (IV). S.—*Weybread Vicarage* [*Harleston*] (IV). S.—*Diss* (IV). Fog.—*Ashburton, Druid* (V). Thick cold fog.—*Gloucester, Llanthony Lock* (VI). Fog.—*Worcester, Bevere Lock* (V) Fog.—*Clarbeston, Penty Parc* (XI). S.—*Port Madoc* (XI). S.

17th and 18th.—*Ramelton, Killygarvan* (XXIII). Heavy S storms.

17th.—19th *Llandovery* (XI). S daily.—*Lechryd, Castle Malgwyn* (XI). S daily.

18th.—*Derby, Elvaston* (VII). Much L at night.—*Douglas, Victoria Road* (XI). S and heavy H showers.—*Glendrishaig* (XIV). S.—*Colmonell* (XIV). S 3 inches deep.—*Forres H.R.S.* (XVII). Heavy S with T and L.—*Watten H.R.S.* (XIX). S lying 6 in. to 8 in. deep.—*Cushendun* (XXIII). S $2\frac{1}{2}$ in. deep.

18th and 19th.—*Builth, Llanwrtyd Wells* (XI). S.

18th—21st.—*Pawston* [*Coldstream*] (X). Very severe frost.

19th.—*Shipley, Esholt* (IX). Sleet.—*Thornley Vicarage* (X). S.—*Clarbeston, Penty Parc* (XI). S.—*Dumfries, Crichton Institution* (XII). S 2 in. deep.—*Loch Shiel, Glenaladale* (XVIII). S lying $8\frac{1}{2}$ in. deep on low ground.—*Tralee, Castlemorris* (XX). Fog.

20th.—*Diss* (IV). Fog.—*Shap, Copy Hill* (X). L.

21st.—*Reigate, Holmfels* (II). Dense fog.—*Nottingham, Strelley,* (VII). Fog all day.—*Emsworth, Redlands* (II). Wet fog.—*Winslow, Addington* (III). Dense fog.—*Cheltenham* (VI). S on hills.—*Worcester, Bevere Lock* (VI). Fog.—*Ketton Hall* [*Stamford*] (VII). Dense fog.—*Llanfrechfa Grange* (XI). Dense fog all day.—*Newcastle West* (XX). Storm from S.W., severe during the night.—*Kilkishen* (XX). R 1·15 in., the heaviest fall in three years.

21st and 22nd.—*Douglas, Victoria Road* (XI). R 2·04 in.

22nd.—*Littlehampton* (II). Dense fog.—*Babbacombe* (V). S.W. gale.—*Burton-on-Trent* (VI). S.W. gale.—*Shap, Copy Hill* (X). Gale, with R all day 1·89 in.—*Gorebridge, Middleton* (XIII). S $1\frac{1}{4}$ in. deep.

23rd.—*Diss.* (IV.) W. gale.

24th.—*Clifden, Kylemore* (XXII). H.

24th—26th.—*Newcastle West* (XX). Fierce sleet and H showers.

25th.—*Langtree* (V). S—*Llandovery* (XI). H.

26th.—*Kensington, Edith Road* (I). S, yielding 1·83 in.—*London, Lansdowne Crescent* (I). R till 5·30 p. m., then S, which was $7\frac{1}{2}$ in. deep at 1 a. m. on 27th; R and S 1·59 in., the greatest fall during

five years.—*London, Camden Road* (I). Remarkably heavy S storm, S 9 in. to 10 in. deep at 9 am. on 27th.—*Hampstead, The Priors* (I). S 8 in. to 9 in. deep.—*Muswell Hill* (I). R and S 1·55 in.—*Finchley, Etchingham Park* (I). R and S 1·24 in., S 9 in. deep.—*Pinner Hill* (I). Gale, with S 12 in. deep.—*Uxbridge, Harefield Park.* (I). R and S 1·56 in.—*Godalming, Hascombe* (II). The most violent and destructive storm for 22 years.—*Godalming, Witley* (II). S 18 in. deep, with drifts from 4 ft. to 8 ft. deep.—*Dorking, Abinger* (II). Much R, followed by a very heavy S storm. S from 10 to 12 in. deep, causing great destruction among evergreen trees, yielding with the R 2·15 in., the largest amount registered here for one day.—*Dorking, Holmwood* (II). R and S 1·85 in.—*Redhill, Oxford Road* (II). Heavy fall of S., depth about 9½ in.—*Reigate, Holmfels* (II). Severe S storm; S 9 in. deep.—*Reigate, Doods* (II). Snowstorm remarkable for its violence, but more still for the great density of the S, and consequent damage to shrubs.—*Pirbright Vicarage* (II). S and R, 2·04 in.—*Wallington*, (II). Severe S storm, doing great damage to trees.—*Dover* (II). Severe gale, with heavy R and H storm, S and sleet, continuing all night; Russian barque wrecked close to pier and pilot house.—*Tunbridge Wells, Camden Park* (II). A S storm set in about 4·30 p.m. after a wet day, and lasted some hours; heavy R followed, which was again succeeded in the early morning by S, which lay about 6 in. deep at 9 a. m. of 27th, yield, 1·83 in.—*Sheldwich* (II). R and S 2·51 in.—*Harefield, Selling* (II). S and R 2·40 in., the largest fall recorded.—*Canterbury, Harbledown* (II). Heavy S storm.—*Sevenoaks, Riverhead* (II.) S and R 2·00 in.—*Wrotham* (II). Severe S storm. S 12½ in. deep, drifting in many places to 6 ft. deep, doing great damage to woods and shrubs, and completely isolating some houses for as much as seven days, it being impossible to approach them even on horseback.—*Keston Tower* (II). Severe S storm; S about 16 in. deep, doing immense damage to shrubberies, gardens, and orchards. *Ramsgate, The Vale* (II). R and S 1·64 in., the heaviest fall in 12 years.—*Herne Bay* (II). R and S 2·35 in., falling from midday on 26th to about 9 a.m on 27th.—*Margate, Apsley House* (II). R 2·47 in., double any previous daily fall recorded here.—*Beckenham, Forgrove* (II). Great S storm, doing immense injury to trees and shrubs, especially elms, birches, thorns, pines, and hollies, and other evergreens.—*Littlehampton* (II). Fearful gale, with R and S 1·54 in.—*Chichester, Eartham House* (II). S and R, 1·80 in.—*Chichester, Chilgrove* (II). R and S 2·20 in.—*Midhurst, Cocking* (II). Severe storm of

R, S, sleet and wind, doing great damage to shrubs, washing away a large piece of the embankment of the Chichester and Midhurst Railway, and causing heavy slips of chalk, which stopped the traffic for four days. Much distress was caused throughout the district by the flooding of cottages, etc.—*Midhurst, Lynch* (II). Heavy R and S (3·02 in.) with gale, causing more damage to roads, dams, &c., than any for the past thirty years at least.—*Lewes, Bedford Lodge* (II). R 1·42 in.; a little S, but none to lie.—*Uckfield* (II). R and S 1·55 in.—*West Cowes, Holmwood* (II). R and S 2·06 in., the heaviest fall in ten years, the nearest being 1·66in., on Nov. 26th, 1877.—*Bournemouth, Tregew* (II). Heavy S.W. gale, shifting quickly in the night to N.W., blowing down many trees; S 5 in. deep.—*Emsworth, Redlands* (II). N.E. gale, with R, S, and sleet, 1·89 in. exceeding any previous record.—*Southampton, Red Lodge* (II). R 3·16 in.—*Alresford, Arle Bury* (II). R all day and S all night, 1·60 in., *Alton, Ashdell* (II). S about 14 in. deep.—*Rotherwick, Tylney Hall* (II). Heavy S storm; S 12 or 13 in. deep.—*Basingstoke, Sherborne St. John* (II). R and 9 in. of S.—*Kingsclere, Ramsdale* (II). S 15 in. deep.—*Hartley Grange* (II). S 12 in. deep.—*Blackwater, Hurstleigh* (II). S about a foot deep; the destruction amongst trees and shrubs was very great.—*Newbury, Greenham* (II). Gale, R, and about 9 in. of S.—*Faringdon, The Elms* (II). S about 15 in. deep.—*Broxbourne* (III). Continuous R and heavy S, with S.E. to N.W. gale.—*Buntingford, Throcking Rectory* (III). Heavy S. storm, with gale, doing considerable damage to trees, telegraph posts, etc.—*Winslow, Addington* (III). Heavy S storm (1·62 in.) from about 5 p.m., 11 in. deep by 10 p.m.—*Woburn Sands, Sandymount* (III). S 13 in. deep.—*Henley-on-Thames, Assenton* (III). Heavy R, followed by heavy S storm; 2·22 in.—*Oxford,* (III). Much R; heavy fall of S, (1·85 in.) doing much damage to trees and telegraph wires.—*Oxford, Radcliffe Observatory* (III). R and S. 1·30 in. Heavy S storm from 4.30 p.m. till after midnight; average depth of S 7½ in., yielding exactly an inch.—*Stanton St. John's, Woodperry* (III). R from 6.30 a.m. to 4.30 p.m., followed by heavy S and frost; R and S 1·32 in.—*Steeple Aston, The Grange* (III). Continuous R, followed by S, 14 in. deep, with a strong gale; much damage done to trees and shrubs.—*Northampton,* (III). R ·53 in., followed by heavy S at 8 p.m.; total fall ·96 in.—*Northampton, Sedgebrooke* (III). Four inches of S.—*Luton* (III). S, about 12 in. deep.—*Ampthill, Haynes Park* (III). S 13 in. deep.—*Cambridge* (III). Heavy R and S, 1·03 in.—*Woodford, The Harts* (IV).

Very stormy night with heavy S, doing much damage to trees.—*Brentwood, Dudbrook House* (IV). S from 8 to 12 in. deep, with drifts from 3 ft. to 6 ft. deep.—*Harlow, Sheering* (IV). Heavy S, 1·08 in.—*Sudbury* (IV). Severe storm; R and S 1·43 in.—*Woodbridge, Melton* (IV). S and R 1·27 in.—*Rendlesham* (IV). Heavy R and S (1·50 in.) with S.E. gale. S seven inches deep, doing much damage to cedar trees.—*Bury St. Edmunds, Westley* (IV). The heaviest S storm since 1875.—*Salisbury, Alderbury* (V). Eight inches of S, with high wind, doing great damage to trees and shrubs. Probable depth greater than record, 1·92 in.—*Warminster* (V). Heavy R and S, 1·99 in.—*Calne, Compton Bassett* (V). Strong N. gale and heavy S storm, wrecking many trees and shrubs. S averaged 8 in. deep and yielded 1·65 in.—*Little Bredy* (V). R from 5.30 a.m. to 9.30 p.m., followed by S most of the night.—*Beaminster* (V). Severe storm; S 4 in. deep, with drifts 10 ft. deep; R and S, 2·23 in.—*Dartmouth, Strete* (V). R, 1·73 in.; no S, and but little sleet.—*Plymouth, Navigation School* (V). R, 1·87 in.; the heaviest consecutive R recorded here, 1·60 in. falling between noon and 6 p.m., a strong N.E. gale blowing all the time.—*Devonport, Rowden's Reservoir* (V). R, 1·72 in., the largest fall since June 30th, 1879.—*Paignton, Rosenville* (V). R, 2·20 in.—*Torquay, Lamorna* (V). R, 2·31 in., the heaviest fall in 23 years.—*Babbacombe* (V). Fog; N. gale; S and R, 2·57 in., the largest fall since observations began in August, 1876, causing heavy floods; 2·82 in. fell in the 19 hours ending 11.15 p.m.—*Torquay, Watcombe Park* (V). R, 2·35 in.—*Ashburton, Druid* (V).—Fog, R and S, 1·82 in.—*Teignmouth, Lower Reservoir* (V). R, 2·85 in., the heaviest daily fall ever registered in Teignmouth.—*Teignmouth, Marine Villa* (V). R, 2·49 in.—*Teignmouth, Woodway* (V). R and S, 2·26 in.; the greatest fall since 1871, with the exception of July 14th, 1875, when 2·49 in. fell.—*Budleigh Salterton, E. Budleigh* (V). R, 2·41 in., an unprecedented fall, causing the only flood of the year.—*Clevelands* [*Lyme Regis*] (V). The most destructive storm remembered here; great damage was done to roads, some being rendered impassable; very little S fell; R, 2·53 in.—*Langtree* (V). R, 1·62 in.—*Falmouth Observatory* (V). Unusually heavy R (1·85 in.) during the day, especially from 1 p.m. to 2 p.m.—*St. John's* [*Devonport*] (V). R and S, 2·03 in., of which 1·50 in. fell as R between 9 a.m. and 4.30 p.m.—*Bude* (V). R, 1·76 in., causing the heaviest land water flood for several years, doing much damage to house property; 1·22 in. fell between 3 p.m. and 6 p.m.—*Crewkerne, Bincombe House* (V). Wet early; heavy S with strong E.N.E. gale

from 2 p.m. to 11.30 p.m. ; 2·40 in. fell in 10 hours.—*Yeovil, West Coker* (V). R and S, 2·08 in. Heavy R from 0.30 p.m. till about 4 p.m., then S nearly all night with heavy gale from N. and N.W.—*Yeovil, Hendford* (V). R till 2 p.m., then S ; 2·56 in.—*Ilminster, White Lackington* (V). Gale with heavy R, 1·85 in.—*South Petherton* (V). Heavy S storm from 3 p.m to 10 p.m. ; S 6 in. deep.—*Templecombe, Stowell Rectory* (V). Severe S storm, S 7 in. deep.—*Wells* (V). S and R, 1·65 in.—*East Harptree, Harptree Court* (V). Eleven inches of S. *Northleach, Yanmouth* (VI). S storm, 1·60 in.—*Northleach, Hampnett Rectory* (VI). S about 14 in. deep.—*Gloucester, Llanthony Lock* (VI). R and S 1·12in.—*Gloucester, Maisemore Lock* (VI). R and S 1·14 in.—*Cheltenham* (VI). Wet all day, S from 5 p.m. to 9·30 p.m.—*Ross, The Graig* (VI). S about 6 in. deep.—*Cleobury Mortimer, Neen Savage* (VI). S about 3 in. deep.—*Burton, Hoar Cross* (VI). S.—*Melton Mowbray, Coston.* (VII). Heavy fall of S.—*Ketton Hall* [*Stamford*] (VII). Heavy R and S, ·85 in.—*Nottingham, Strelley* (VII). S at night, yielding ·45 in. —*Mansfield* (VII). S storm.—*Derby, Elvaston* (VII). Heavy S storm at night.—*Wakefield, Stanley Vicarage* (IX). S.—*Shap, Copy Hill* (X). R, H and S.—*Chepstow, Shirenewton Hall* (XI). 7 in. of S.—*Llanfrechfa Grange* (XI). S and R, 1·20 in.—*Llechryd, Castle Malgwyn* (XI). Very wet rough day; R, ·90 in.—*Miltown Malbay* (XX). H.—*Enniscoe* (XXII). S.

27th.—*Weybread Vicarage* [*Harleston*] (IV). S 6½ in. deep.—*Babbacombe* (V). N.N.W. gale.—*Stronvar* (XVI). 4 in. of S.—*Kilkishen* (XX). T. *Miltown Malbay* (XX). S.W. to N.W. gale.

28th.—*Calne, Compton Bassett* (V). T and L and sleet.—*Babbacombe* (V). Solar halo ; L and T.—*Ashburton, Druid* (V). L, H and R.—*Langtree* (V). Vivid L.—*Bodmin, Fore St.* (V). TS ; two colts killed by L at Trescowe, St. Mabyn.—*Burton-on-Trent* (VI). W. gale.—*Llandovery* (XI). H.—*Gorebridge, Middleton* (XIII). S 1 in. deep.—*Stronvar* (XVI). 4 in. of S ; loud peals of T.—*Derrycastle* [*Killaloe*] (XX). Squally with H and sleet.—*Miltown Malbay* (XX). N.W. gale, with T, L and H.

29th.—*Emsworth, Redlands* (II). Fog.—*Stourport, Lincomb Lock* (VI). Fog.—*Newcastle West* (XX). H.

30th.—*Cambridge* (III). S.—*Gloucester, Lanthony Lock* (VI). Fog. —*Liverpool, Walton-on-the-Hill* (VIII). Very dense fog.

31st.—*London, Lansdowne Crescent* (I). Dense fog at 10·30 p.m.—*Wallington* (II). Dense fog all day.—*Winslow, Addington* (III). Dense fog.—*Northampton* (III). Dense fog.—*Calne, Compton Bassett* (V). Dense fog.—*Melton Mowbray, Coston* (VII). Dense fog. *Llanfrechfa Grange* (XI). Dense fog.

OBSERVERS' NOTES ON THE MONTH.

JANUARY.

I. *London, Lansdowne Crescent.* Very cold from 6th, with frequent falls of S; frost on 17 nights.—*Muswell Hill.* R more than double the average of 14 years, and greater than that of any other January in that period, excepting January, 1877, when 5·01 in. fell; there were only seven days on which neither R nor S was recorded.

II. *Dorking, Abinger.* Changeable; snowy from 6th to 15th and 21st to 24th, and with two severe frosts, which, however, did no harm.—*Tenterden.* The wettest January since 1877 and the coldest since 1881. There were only four nights without frost, yet only two days on which temp. did not rise above 32°. S fell on 9 days.—*Ashford, Bethersden.* The cold was so severe as to kill a eucalyptus globulus that had lived five years.—*Emsworth, Redlands.* The heaviest R in any month during two years. Rough, unsettled weather, with great alternations of temperature.

III. *Broxbourne.* Very stormy and unsettled; S fell on 13 days and R on 10 days.—*Buntingford, Throcking Rectory.* A cold month; mean temp. (33°·7) 7° below the average. S was frequent and lay long; R much above the average.—*Winslow, Addington.* Cold, and remarkable for many and sudden changes. The cold was exceptionally severe, shade temp. on 7th, 8th, and 9th being 18°, 8°, and 19° respectively, and on 20th 19°.—*Cambridge.* Mean temp. (33°·8) 3° below the average of 17 years.

IV. *Harlow, Sheering.* R ·76 in. above the average of 20 years.—*Diss.* Rather dismal, with 23 days of R or S, though without any very heavy fall. Frosts frequent, but not sufficiently continuous for much skating. Sunshine was decidedly scarce.—*Downham, Crimplesham.* Severe frosts; S on 6 days; very stormy on 4 days.

V. *Calne, Compton Bassett.* Very unsettled; snowing, raining or freezing most of the month.—*Torquay, Babbacombe.* Cold, wet and snowy, with low pressure. R one-third more than the average, 3·37 in. of S and R falling on the last seven days. The coldest month since January, 1881, and the wettest since October, 1882.

Warm from 1st to 4th and on 13th and 31st, but cold from 5th to 12th, on 14th, and from 16th to 28th. The mean and max. pressures were the lowest observed during ten Januarys. Variable winds prevailed on 11 days, N.W. on 7, W. on 5, S.W. on 5, N.E. on 2, and N. on one day; gales on 8 days, TSS on 2, S on 14 days (the greatest number yet observed in any month); H on 8 days, fog on two days. —*Ashburton, Holne Vicarage.* R 1·86 in. above the average of five years.—*Holsworthy, Clawton.* From the middle of the month to 28th, when a thaw occurred, continuous frost prevailed and deep S lay on the ground.—*Temple Combe, Stowell Rectory.* Cold and snowy, the S not remaining long on the ground, except from 22nd to 27th.

VI. *Bristol, Shirehampton.* Very rough with constant squalls; there were no severe frosts, but a good deal of S fell.—*Cirencester, Further Barton.* After a few mild days at the beginning, a very wintry month, much S alternating with partial thaws and R; pressure very low throughout; the frost broke up about the 26th.—*Ross, The Graig.* Excepting 1869, when 6·16 in. of R fell, the wettest January during 28 years, and with the greatest number of rainy days. R or S fell daily from January 12th to February 3rd inclusive. There was skating in the meadows, but the frost was not continuous enough to freeze the river Wye, which was once in flood. The first four days were the only warm ones, and alternations of frost, S, R, and thaw made up a month of most unpleasant weather.—*Cleobury Mortimer, Burf Cottages.* An average depth of 10½ in. of S lay on the ground at the close.—*Burton, Hoar Cross.* Very dark and dull, with dense fogs at times and no sunshine, except on 26th, when the sun shone from 10 a.m. to 3 p.m.—*Burton-on-Trent.* January opened with very warm, but closed with very cold, weather; the temp. during the last fortnight scarcely rose above 32°.

VII. *Melton Mowbray, Coston.* Very wintry, with the exception of the first three days; frequent S storms occurred, and much S lay on the ground at the close.—*Ketton Hall* [*Stamford*]. Cold and wintry throughout; S on ground from 20th to the close. There were nine days of bright sunshine.—*Spilsby, Partney.* Mean temp. 33°·9. S fell on 6th, 7th and 9th, yielding ·35 in. and rendering the road between Oswardby and Sutterby impassable on 10th.—*Nottingham, Strelley.* Very cold and rather wet, mean temp. 2°·6 below, and R nearly 1 in. above, the average. Frosts in shade occurred nightly, from 5th to 25th, but the min. was not very low. S on 13 days.—*Worksop, Hodsock Priory.* Temp. below the average throughout, but the frost was

more remarkable for duration than for intensity, and for the number of alternations of frost and thaw. Two of the previous ten years (1879 and 1881), had colder Januarys. The precipitation (of which a large part was S) and the number of rainy days were more than in any of the previous ten years.—*Stuffynwood Hall* [*Mansfield*]. The month will be remembered for the severity of the weather and for the great fall of S.—*Derby, Elvaston.* Stormy, cold, windy and wintry, with 18 frosty nights.

IX. *York, Cherry Hill.* R 1·37 in. above the average of 37 years.—*Aysgarth Vicarage.* With the exception of ·78 in. on 3rd, and ·53 in. on 12th, the precipitation was all S, sleet or H. S fell daily from January 16th to February 1st, inclusive.—*Scarborough.* Cold and changeable, S and frost alternating with R.—*East Layton* [*Darlington*]. The first two days very fine, but from the 3rd to the close the ground was wrapped in a thick wintry garment. A few rough winds occurred, and in places the highways were quite blocked and had to be cut open; grouse dying in great numbers for want of food, the heather being completely covered.

X. *Barnard Castle, Whorlton.* Very cold; much S and severe frost alternating with thaw, wind and rain.—*Elterwater, Woodlands.* Very cold and stormy.—*Shap, Copy Hill.* Remarkably changeable, heavy showers of R, then hard frost for a few hours, which made travelling both dangerous and extremely difficult, then heavy falls of S which drifted in many places. The latter part of the month was one continual fall of S which lay at the close to a very great depth; walls were not to be seen, lanes were quite full, and roads and the railway were hard to keep open; many small birds died, though the frost was not so keen as has been known before. Some fine displays of aurora were seen.

XI. *Llanfrechfa Grange.* Sharp frost after 5th; the weather subsequently was very variable, with frequent frosts by night and thaws by day, S remained all the month on neighbouring mountains.—*Llandovery.* The heaviest fall of S since 1881. *Llechryd, Castle Malgwyn.* R slightly above average; temp. very changeable; stormy at times with T; more S than for some years.—*Douglas, Victoria Road.* Very wretched; cold with strong N. gales and frequent SS or R on 25 days. Temp. low throughout, especially the max. readings.

XII. *Melrose.* Cold and damp; mean temp. (28°·5) 5° below, and R 1·19 in. above, the average of 14 years. Wind S. and W. 21 days, N. and E. 10 days.

XIII. *Gorebridge, Middleton.* Much S fell, the ground being clear on only two days after 4th.

XVI. *Dollar.* S lay on the ground the whole month, and no work could be done on the land.—*Coupar Angus Station.* Colder than usual, with S or sleet nearly every day. The temp. rose to or above 40° on only three days.—*Dunkeld H.R.S.* The stormiest January for four years, and the ground covered with S throughout.

XVIII. *Skye, Armadale Castle.* First week very cold with sleet and frost; second week very stormy with heavy falls of S; third week R, S and hard frost, which continued to the close.—*Ardkenneth.* Stormy, cold and changeable; wind constantly shifting, prevailing direction W. to N. Frost, S, sleet and R often occurred within 24 hours. The month was free from violent storms and from L and T; aurora frequent.—*Drumnadrochit.* Remarkably stormy, S never once disappearing from the low-lying ground after the 3rd, a very unusual thing in this sheltered vale.

XIX. *Forsinard H.R.S.* Almost continuous S, with frequent high winds and heavy drifts.—*Watten H.R.S.* Generally severe with almost continuous S and frequent change from frost to thaw.

XX. *Dunmanway, Coolkelure.* Very variable; very mild in the early part; S lying on the mountains between 15th and 27th; cold and sleety R after, with very raw winds.—*Glenville.* Severe with cold winds and much S and frost.—*Fermoy.* Wet and stormy, with a little frost and S.—*Killarney.* Mean temp. 5° below the average of 5 years, and vegetation very backward; no strong gales, prevailing direction of wind W. and N.—*Tipperary.* Very severe.—*Nenagh, Castle Lough.* A month of S, sleet and R, with a few frosty days. The hills were generally more or less white.—*Kilkishen.* Cold, and only 6 days without R, mean temp. only 36°·1.—*Broadford, Hurdlestown.* The weather during the month was nearly as bad as could be, so cold and wet that no farm work could be done.—*Miltown Malbay.* The coldest, most variable and squally month of the winter, with much T and L in the latter half, and two or three heavy falls of S which covered the ground for over a week. R not excessive.

XXII. *Ballinasloe, Kilconnell.* Most unusually severe, and the fall of S exceptionally great. The hardest January experienced during 23 years' residence in Ireland.—*Clifden, Kylemore.* Wild and stormy, with frost, S and H.—*Ballinamore, Lawderdale.* The first fortnight was wet and bleak; the remainder of the month seasonable, with frost and S.

XXIII. *Belfast, New Barnsley.* The most severe January since 1881; R, sleet, S and frost alternating throughout the month.—*Ramelton, Killygarvan.* Severe, with much S, but very changeable, S and R frequently alternating within 24 hours. R 3·79 in. above average; mean temp. 3°·5 below average.

FEBRUARY.

I. *London, Lansdowne Crescent.* Very cold, dull, and dry, with frost on 18 nights. The coldest February since 1855.—*Muswell Hill.* R (·65 in.) the smallest in any February during 14 years, and only two-sevenths of the average for that period. R or S was recorded on only eight days.

II. *Godalming, Witley.* Remarkably small R; ·60 in. only.—*Dorking, Abinger.* Very dry, changes frequent during the first few days, but the weather settled down to fog and frost and was very dull, continuing so with little variation throughout. Vegetation remained almost stationary.—*Tenterden.* The driest February in 24 years, and one of the coldest; 21 nights of frost and very little sunshine.—*Littlehampton.* The coldest and most sunless February remembered. No growth in gardens or fields all the month.—*Lewes, Iford.* The coldest month for 25 years.—*Emsworth, Redlands.* Dull, gloomy weather, with N. to E. wind and very low temp. prevailed during the whole month; hard frost from 4th to 10th, and from 20th to 26th. There was no S till early morning of March 1st.—*Alton, Ashdell.* Cold, with very small R, ·42 in.

III. *Broxbourne.* Remarkably cold, gloomy, and foggy, with very little sunshine and hardly any wind. Temp. considerably below the average, frosts occurring on every night but two. Prevailing winds N.E. and E.—*Buntingford, Thocking Rectory.* The driest February since 1857, and the coldest since 1855; frost on 27 nights. Mean temp. 31°·8.—*Winslow, Addington.* The driest and coldest February registered here. Mean temp. 32°; the max. reached 50° only, and on nine days did not reach 35°.—*Oxford.* Uninterruptedly cold; vegetation backward and dormant.—*Northampton.* R 1·44 in. below the average of 20 years. Westerly winds prevailed to 14th, afterwards N.E. and S.E.—*Peterborough, Springfield House.*—Remarkably dry and favourable for farm business; R only ·12 in.—*Cambridge.* Very cold; mean temp. (32°) 7° below the average of 17 years. R

·20 in., the smallest monthly fall during 33 years, except July, 1868, when ·18 in. fell.—*Wisbech, Bank House.* The smallest monthly R (·12 in.) since observations commenced in 1859.

IV. *Southend.* Very dry and frosty.—*Harlow, Sheering.* R, ·18 in. The driest month for at least 22 years, the nearest being January, 1880, when the fall was ·23 in.—*Ipswich, Bishop's Hill.* Dull, dry and cold, pressure generally very high. R only ·24 in., nearly 1·25 below the average.—*Woodbridge, Melton.* R only ·28 in., the smallest remembered.—*Ash Bocking Vicarage.* Singularly dry and cold, with no genial days and little sunshine after the first day or two. Water got lower in ponds.—*Diss.* Fine frosty weather prevailed till 10th, which was foggy; thence to 20th (when a bright hour occurred at midday) was dismal, cold, and absolutely sunless. The remainder of the month was still and cold, with almost constant slight S or sleet. The whole fall for the month, however, was very trifling. Much sickness prevailed, chiefly whooping-cough, heavy colds, and rheumatism.

V. *Calne, Compton Bassett.* Bitterly cold throughout, with ground frosts on 28 days.—*Dartmouth, Strete.* Remarkably dry: R only ·38 in. —*Torquay, Babbacombe.* Very cold, dry, dull and gloomy: R only two-fifths of the average, and none was registered in the 11 days from 16th to 26th. The coldest and driest of the past ten Februarys, and the coldest month since January, 1881. The variations of temp. were small, the shade max. never rising to 50°, which point it has exceeded in every other month since observations were commenced in 1876. It was cold from 4th to 10th, and 15th to 28th. It was very dull and gloomy from 15th to 20th, and on 24th, 25th, 27th and 28th. S fell on 6 days; vegetation very backward; mean temp. 37°·7 only.—*Ashburton, Holne Vicarage.* R, 6·72 in. below the average of five years.—*Teignmouth, Woodway.* A very great excess of mist during the month.—*Temple Combe, Stowell Rectory.* Dull, and very cold, with no great extremes of temp., and with an extremely scanty R, ·68 in.—*Taunton, Bishop's Lydeard.* Generally dull and foggy, with more or less frost. On the Quantocks the fog froze on the trees in long spikes, all pointing to windward, some being quite an inch long, and weighing down the trees like S. The appearance was very curious, and, had the sun come out, would have been beautiful.

VI. *Clifton.* But for a heavy S storm in the early hours of March 1st, the R of February would have been the smallest recorded for that

month in 34 years.—*Cirencester, Further Barton.* Very cold and dull, with little wind, much fog, and constant, though seldom severe, frost.—*Ross, The Graig.* The coldest February since 1855, although the frost was not very severe; there was no day on which the max. temp. reached 50°, and there were only three when it rose to 45°. But for S in the early morning of March 1st, the R would have been exceptionally small.—*Handsworth.* R (·85 in.) 1·41 in. below the average.—*Burton, Hoar Cross.* In the earlier part of the month the weather was bright at times, but the latter part was dull with severe frost.—*Burton-on-Trent.* Very cold, dull and damp, though the R was much below the average.

VII. *Melton Mowbray, Coston.* Cold and dull. The S of January had not altogether departed when the fresh fall began on the night of February 27th. Mean temp. only 32°·5.—*Ketton Hall* [*Stamford*]. Very cold, very dry, and very dull, with several fogs and several severe frosts; no S to speak of; prevailing winds N. and E.—*Spilsby, Partney.* Remarkable for the small R (·29 in.) and the prevailing low temp.—*Horncastle, Bucknall.* Persistent, though never very severe frost, characterised this month, which was the coldest February since 1873. S fell daily from 23rd to the close.—*Nottingham, Strelley.* Very cold; mean temp. 5°·4 below the average. Frost in shade on 23 nights. R 1·75 in. below the average, the max. fall being only ·07 in.—*Worksop, Hodsock Priory.* Very dry, with high pressure and average sunshine. Very cold, but the cold was more remarkable for its duration than for its intensity. Mean temp. 6° below the average, and 2°·5 lower than in any of the previous ten years, during which period there were only four months with a lower mean, two Decembers and two Januarys. The precipitation was very deficient, only ·39 in., of which nearly all was S. During the last ten years there were only two drier months.

VIII. *Macclesfield.* R only about 30 per cent. of the average, and the smallest in February since 1858, when ·21 in. fell. Singularly few storms.—*Liverpool, Walton-on-the-Hill.* Exceedingly cold and stormy, especially towards the end.—*Southport, Hesketh Park.* R (·91 in.) much less than in any of the previous 14 years except 1873. —*St. Michael's-on-Wyre.* The driest February in 11 years; R 1·26 in.

IX. *York, Cherry Hill.* R ·63 in. below the average of 37 years.—*Scarborough.* Dull and cold, with very little sunshine, and S on 11 days.—*East Layton* [*Darlington*]. Very severe, with more frequent (though less severe) frosts than ever observed here before, the temp.

having been below 32° on 24 days. All planting operations at a stand.

X. *Barnard Castle, Whorlton.* Cold, with frequent frost and S, and sunshine in the last week.—*Shap, Copy Hill.* Very seasonable. Most of the January S was still lying, at the close of this month, in heavy drifts behind the walls and in narrow lanes, some of which were quite full. Keen frost prevailed and farm work was at a standstill.

XI. *Llanfrechfa Grange.* Cold, with none of the sunny days February generally has; frost on every night but six, and a heavy fall of S at the close.—*Douglas, Victoria Road.* Very cold, no very intense cold, but the temp. was persistently low, and on many days did not rise above 32°.

XII. *Dumfries, Crichton Inst.* S fell to the depth of 7 in. on 8 days, with winds from N.E. and S.E., and there were 10 days of misty, foggy, or hazy weather.—*Melrose.* The coldest and driest February for 14 years; mean temp. (29°) 6°·2 below the average; frost every night. R 1·58 in. below average. Wind moderate; S. and W. during the first half, N. and E. during the second half, when most of the S fell. Agricultural labour much in arrear.

XVI. *Coupar Angus.* Mean temp. (31°·9) about 6° below the average of four years; R much below the average, but the number of wet days (19) exceeded that of any of the four preceding years.

XVIII. *Loch Shiel, Glenaladale.* A fine winter month; the latter half cold and frosty, with E. wind.—*Skye, Armadale Castle.* In the first week there was no R, but hard frost with S; the second week was very cold, with showers of sleet; in the third week there were heavy showers of R and hard frost at night; during the closing week hard frost prevailed, with slight showers of R.—*South Uist, Ardkenneth.* Few storms, but cold and frosty. S fell from S. and S.W., but was seldom seen on the low ground. Prevailing winds southerly. —*Drumnadrochit.* Though dry on the whole, the weather was far from being so genial as it often is, and vegetation suffered.

XIX. *Forsinard, H.R.S.* Severe, with S on 18 days.—*Watten, H.R.S.* Unsettled, dull, foggy and frosty, with frequent slight falls of S; the latter portion of the month very cold.

XX. *Dunmanway, Coolkelure.* R unusually small, and the weather generally favourable for agriculture.—*Fermoy.* Very cold, wet and windy.—*Tralee, Castlemorris.* Fair and frosty, but there were frequent showers of misty R.—*Derrycastle* [*Killaloe*]. Very fine and soft during the first half, harsh and chilly afterwards. The R (2·73 in.) was the smallest in February during 8 years. S fell on 5 days, but did not

remain long.—*Nenagh, Castle Lough.* Changeable, the early part damp with a high temp., succeeded by slight frost, and, later on, S and sleet. R below the average.—*Kilkishen.* Mild, the temp. not falling below 32° until the 15th; from 19th to 23rd was exceptionally warm, and thence to the end cold. S fell on the night of 28th.—*Miltown Malbay.* About an average February, minus the usual storms. Though the R was not excessive, there was no drying weather to fit the ground for agricultural work. The month closed with a fiercely bitter S storm from S.E.

XXII. *Clifden, Kylemore.* Fine for outdoor work and favourable for farmers.—*Ballinamore, Lauderdale.* Cold and hard, but seasonable.

XXIII. *Belfast, New Barnsley.* Variable weather prevailed throughout, changing from sleet, R and frost to very fine and warm, and then again to S and frost. Not much could be done in the way of preparing the land for seed.—*Ramelton, Killygarvan.* Comparatively fine, although the temp. was low; the R was very little above the average, and there was hardly any high wind; the R fell mostly at night. Mean temp. (36°·6) 3°·5 below average.

MARCH.

I. *London, Lansdowne Crescent.* The first 18 days were very cold, frost occurring on 17 nights; the remaining days were warm and rainy; R rather below the average.

II. *Dorking Abinger.* March came in cold and stormy, and continued so for more than half its time, preventing almost any tillage of the soil and killing a great many birds, numbers being found dead on 15th and 16th. A change set in about the 19th, which was most welcome, vegetation answering to it as if by magic. A strong W. wind finished up a memorable month.—*Hythe.* Severe wintry weather until 18th, then mild, wet, and squally.—*Keston Tower.* Extraordinarily cold until 18th, when the frost disappeared, little wind until 30th and 31st. Vegetation very backward.—*Littlehampton.* Vegetation made no perceptible advance, and birds were more pitifully tame than ever observed before, many kinds seeking food in the grounds of Surrey House from 1st to 17th.—*St. Lawrence.* March came in like a lion. The frost that began on January 7th, held on persistently (with the exception of a short break from February 12th to 15th) till March 18th. Vegetation was conse-

quently very backward, but wonderful progress was made during the last fortnight. R 1·26 in. above the average of 15 years.—*Wantage, East Hendred.* The month opened with hard frozen ground, covered with four or five inches of S, and the frost continued till 18th. The mean temp. of the first 17 days was 30°·4, that of the last 13 days, 50°·0.

III. *Broxbourne.* The frost which began on January 2nd, lasted with hardly any intermission till March 18th, and out of the 75 consecutive nights, frosts in shade occurred on 68. On the 19th, the weather changed completely, and it became warm; the min. on 22nd, being 45°.—*Buntingford, Throcking Rectory.* Cold, especially the first fortnight, the mean temp. of which was 30°·3.—*Winslow, Addington.* Frost every night until the 18th, and the mean temp. to that date was only 31°. On the 19th, a rapid and great increase of temp. occurred which soon cleared away the ice and S.

IV. *Harlow, Sheering.* R, ·23 in. below the average of 20 years. From February 16th to March 16th the temp. never reached 40°, and from February 15th to March 18th the min. temp. was always below 32°.—*Ipswich, Bishop's Hill.* The first three weeks dry and cold, the last week warm and showery. Very little wind until the last four days, and on the last day there were some very heavy squalls.—*Diss.* March came in like a polar bear, and went out like a roaring lion. Hard frost and S during the first three days, then frost with few intervals and occasional S till 17th; much skating; warmer weather with showers from 18th to 25th, whence till end foul weather with heavy gales and squalls. No spring flowers, but the young crops which looked bad during the first fortnight improved much afterwards. Bronchial affections, whooping cough and muscular rheumatism very prevalent.

V. *Calne, Compton Bassett.* Sharp frosts during the first 18 days, after which there were a few fine days, followed by squally and wet weather.—*Torquay, Babbacombe.* Cold, wet, windy and dull, with R nearly two-thirds above the average. Excepting March 1883, it was the coldest March for ten years. A great rise of temp. occurred from 17th to 21st, the max. rising to 53°·3 on 20th, the first time it had reached 50° since January 4th. The mean daily range (8°·5) was the least; the mean and absolute max. in sun, and the mean shade max. were the lowest observed in March. S on 9 days, solar halos on 4; fog on 1st, and daily from 18th to 25th. Vegetation very backward till 17th, but grass grew rapidly towards the close.

—*Teignmouth, Woodway.* An unusually large amount of mist during the month.—*Temple Combe, Stowell Rectory.* Cold to the 17th, after which a decided change took place.

VI. *Cirencester, Further Barton.* The persistent cold and frost of February became more severe, and lasted until 16th, after which a change took place, and a period of genial weather followed.—*Ross, The Graig.* The cold weather which set in on July 29th, 1885, continued with but little intermission to the middle of this month, only six out of the 33 intervening weeks having been above the average, and that only to the extent of 1°·9, whereas the average deficit was between four and five degrees. From January 4th, 1886, the cold was continuously severe, though the frost was not at all exceptional on two or three nights. No such continuance and persistence of cold had previously been recorded here, though in 1814 and 1815, there was more severe cold, but with intervals of higher temperature. From 20th to the end of the month was as exceptionally warm, the mean temp. of the week ending 27th being 52°·5, or higher than that of any previous week in March for at least a quarter of a century. About 8 in. of S lay on the ground till the 20th.—*Burton, Hoar Cross.* Deep S prevailed till 17th, with severe frost, then mild weather ensued.

VII. *Melton Mowbray, Coston.* The first 18 days very cold and winterly, then came a thaw and a short period of mild genial weather, followed by high winds and a storm of S and H on the last day of the month. From January 7th till March 22nd the ground was never quite free from S.—*Ketton Hall* [*Stamford.*] Very wintry up to 18th, when it turned mild, S disappeared, and vegetation of all kinds commenced growth.—*Horncastle, Bucknall.* From 4th to 11th the highest temp. reached was 39°, and the min. was only once above 25°, the mean of the 7th being only 24°, the nearest approach to which since 1867 was 26°·2, on March 11th, 1874.—*Ulceby, Limber Grange.* Frosts from 7th to 10th almost destroyed our bare wheats; from 15th to 20th the ground was again covered with S; the following week was like summer.—*Nottingham, Strelley.* Cold, wet, and sunless; mean temp. 2° below, and R 1·50 in. above, the average. First 18 days very cold. During 71 days, from January 6th to March 18th, the mean temp. of only five was above the average.—*Mansfield.* R the highest recorded here, being 1·60 in. above the average of 16 years. A heavy S storm occurred on 1st, followed by cold and occasional S storms to 20th, when a sudden

change to mild spring weather cleared the ground, which had been snow-clad since January 5th.—*Worksop, Hodsock Priory.* Remarkable for the heavy S storm on 1st, for the extreme cold from 4th to 11th, and for the great contrast between the first and second halves of the month. R (2·35 in.) was larger than in any March since 1877. Farmwork was very backward.

VIII. *Chester, Christleton Hall.* Very cold and frosty the greater part of the month, with heavy falls of S.—*Macclesfield.* The severest March for many years. The lowest temp. (14°·0) since the great frost of January, 1881, was reached on 7th.—*Liverpool, Walton-on-the-Hill.* The weather during March was exceptionally erratic, freezing almost without intermission until 17th, and becoming on 24th as exceptionally mild, the temp. reaching 63°.—*Blackpool, South Shore.* Frost from 1st to 19th, with S on the ground the whole time.

IX. *Scarborough.* Very cold until 19th, when it suddenly changed warmer, but the last four days were cold again. S on 10 days.

X. *Barnard Castle, Whorlton.* Very cold with heavy S and frost until 19th; high wind from 26th to the close.—*Shap.* Cold and unsettled; the wettest March since observations commenced.

XI. *Llanfrechfa.* Unusually calm and cold, with sharp frost and S on ground till 18th, then very warm and wet, so that farmers were unable to plough, or prepare the land.—*Llechryd, Castle Malgwyn.* Very cold up to 17th, and very wet during the latter part.—*Llanerchymedd, Llydiarth Esgob.* S lying 11 in. deep on 1st, drifted to eaves of houses; evaporated slowly by 12th; many small birds died.—*Douglas, Victoria Road.* March 1886 will be long remembered for the furious gale and heavy S storm which occurred on 1st, said to be the heaviest fall within living memory. The drifts were certainly many feet deep; all railway traffic in the Island was stopped for days, and postal communication with the country districts suspended. Remarkably cold and dry until 19th, when, after a heavy fall of R, the wind shifted to S.W., and it became milder. The remainder of the month was wet and very stormy. The cold winter weather set in on December 27th, and lasted, with one or two short intermissions, until March 19th.

XII. *Melrose.* The month will be long remembered as the coldest and stormiest on record. Mean temp. (33°·1) 3°·5 below the average of 14 years, and R 2·13 in. above the average. S fell on 12 days, the greatest fall (13½ in.) occurred on 2nd, and the S being light and powdery and accompanied by strong wind from N.E., all

the roads and railways in the district were blocked. Milder after 19th. All agricultural work very much in arrear, and very little seed was sown.

XIII. *Innerleithen, Runic Cross.* Exceptionally stormy, with much S blocking the railways and causing sheep to be driven from their mountain pastures to the lowlands; grouse and black game also left, but returned after the thaw.

XVI. *Dollar.* Cold, dull, and rough, no ploughing or work on the land being possible.—*Balquhidder, Stronvar.* Very hard frost prevailed, with S on the ground, and no work on farms was possible till 19th, and after that it was so wet that it was not fit to work.—*Coupar Angus.* Till 19th the night temp. was always below freezing point, and from 6th to 13th the day temp. was extremely low. From 21st to 27th, both night and day temp. were extremely high.—*Dunkeld H.R.S.* Exceedingly stormy, the ground being covered with S to a depth varying from three to seven inches for fully two-thirds of the month.

XVIII. *Loch Shiel, Glenaladale.* The first half of the month was very cold and dry, with a good deal of bright weather and great prevalence of E. wind.—*South Uist, Ardkenneth.* Cold E. winds prevailed, with frosty nights. Snow lay on the hills, as it had done since Christmas, but hardly any was seen on low ground. Aurora of white, yellow, and red colour was frequently seen in the N.—*Drumnadrochit.* Vegetation made little progress until the 19th, when very genial weather set in, the 23rd, 24th and 25th being almost sultry.

XIX. *Watten H.R.S.* Dry and cold; the first half was a prolonged S storm (though there was no heavy fall), with hard frost; the latter half was dry and fine.

XX. *Dunmanway, Coolkelure.* Up to 17th, harsh and cold winds, principally from E., prevailed; the latter half exceptionally wet with W. and S.W. winds.—*Glenville.* Very wet (R, 5·27 in.), only surpassed in 1877, when 5·70 in. fell. Cold winds with frost, S and stormy weather prevailed.—*Derrycastle* [*Killaloe*]. Extremely harsh until 18th, when the snowdrifts were entirely thawed; the weather then became more genial, but wet and stormy.—*Nenagh, Castle Lough.* Very cold and dry, with temp. seldom above 40°, and frequent night frosts till the 18th, when the temp. suddenly rose, and for some days varied from 55° to 60°, but fell again towards the end of the month, when it was very wet.—*Kilkishen.* The commencement of the month was very cold; the latter part was stormy. Mean temp. 40°·2.

—*Miltown Malbay.* S and hard frost prevailed until the 18th, when milder weather set in, bringing with it copious falls of R, which put a stop to tillage. Heavy gales with S, H and R, from 29th to 31st.

XXI. *Gorey, Courtown.* Heavy S on 1st, followed by sharp frost every night from 3rd to 14th.

XXII. *Galway, Queen's College.* Very changeable and severe.—*Clifden, Kylemore.* A very unfavourable month for farming.—*Ballinamore, Lawderdale.* From 1st to 16th, dry and cold, but seasonable; from 17th to 31st, wet, cold and unseasonable.

XXIII. *Belfast, New Barnsley.* Very severe and wintry till 17th; from 18th to 28th, fine, genial and spring-like, starting vegetation rapidly; from 29th to the close S, sleet, R and very stormy weather prevailed, making farmers very anxious about seed-time.—*Ramelton, Killygarvan.* Severe S storm on 1st, and a violent gale on 30th, but otherwise not a bad month excepting for great cold up to the 20th; the remainder of the month was mild. R below average; mean temp. 2°·5 below average.—*Buncrana.* Heavy falls of S occurred on 1st and 2nd, and the S covered the hills for the greater part of the month, and retarded agricultural labour. Temperature low for the season.

APRIL.

I. *Muswell Hill.* R less than three-fifths of the average of 14 years, but spread over a large number of days.

II. *Dorking, Abinger.* A good month for all kinds of out-door operations, being somewhat dry; settled after the middle.—*Wallington.* Seasonable, though during the last half there was much E. and N.E. wind.—*Hythe.* Dry and ungenial, with much cold N.E. wind. Elms were scarcely in leaf at the close.—*Emsworth, Redlands.* Strong winds prevailed, chiefly from N.E. to N.W., with S, H, R, T and L, and frosty nights. A period of great heat occurred from 19th to 28th, followed by a sudden change to great cold about 3 p.m. on 28th, and there was ice on ponds on the morning of May 1st.

III. *Broxbourne.* Cold N.E. winds prevailed.—*Buntingford, Throcking Rectory.* Bright with variable temp. Little R fell after the 18th.—*Winslow, Addington.* Very ungenial and unsettled.—*Northampton.* R ·35 in. below the average of 20 years.

IV. *Ipswich, Bishop's Hill.* R and temp. below the average.—*Diss.* Changeable weather. Young crops looked well at the close and early garden produce was good; spring flowers were backward.

V. *Calne, Compton Bassett.* Cold and ungenial, with frequent showers of R and H.—*Ashburton, Holne.* R 1·31 in. below the average of five years.

VI. *Cirencester, Further Barton.* Cold and unsettled, with R and wind until 21st, then a week of fine warm weather, followed on 28th by a cold stormy fit with a little S.—*Ross, The Graig.* The wet period, which set in on March 16th, continued till the 18th of this month, 5·62 in. falling in 34 days, which is more than the fall during any corresponding period for 30 years. The close of the month was fine with some beautiful weather, and vegetation made a rapid start, although about a fortnight late.—*Burton-on-Trent.* The first fortnight was, as a rule, stormy, and cold N.E. winds prevailed during the rest of the month, except from 23rd to 27th, when the weather was splendidly warm and fine.

VII. *Nottingham, Strelley.* Mean temp. 1°·5 below, and R about, the average. From 19th to 28th only ·02 in. of R fell.—*Mansfield.* Cold showers and cold nights, with absence of sunshine by day, characterized the month. High winds prevailed during the first week and N.E. winds from 10th to the close. R ·17 in. above the average.—*Worksop, Hodsock Priory.* Cold, with average R and sunshine. Heavy gales occurred in the first week with mild and rather wet weather; the rest of the month was cold, the last 10 days being dry and the nights in the last week frosty.

VIII. *Liverpool, Walton-on-the-Hill.* Extremely changeable; at times very mild, at others just as cold. R somewhat below the average.

IX. *York, Cherry Hill.* R, ·28 in. above the average of 37 years.—*Scarborough.* Dull and cold; R ·52 in. above the average.—*East Layton* [*Darlington.*] Very cold and ungenial; work and vegetation very backward; in fact it was one of the latest seed-times on record.

X. *Barnard Castle, Whorlton.* Much R in the early part, and with the exception of three warm days (25th to 27th) cold throughout.—*Shap, Copy Hill.* The early part of the month was miserably cold and very wet, with strong gales; rivers were full, and in some places land was under water; a very bad seed-time. Afterwards dry and cold, with frosts at night, which kept grass very backward.

XI.—*Llanfrechfa.* The latter part of the month was very favourable for agricultural operations; from 18th to 28th it was unusually warm, after that very cold winds prevailed.—*Llechryd, Castle Malgwyn.* —The first part of the month was very wet, the latter part was characterized by very hot days and cold nights.—*Douglas, Victoria*

Road. From the 1st to the 10th R fell every day, and S.W. gales, more or less strong, prevailed. From 10th to the end bitter E., N.E., and N.W. winds blew, with dry, cold, and frequently bright weather. Trees were quite bare at the close, and vegetation was very backward.

XII. *Melrose.* Mean temp. (39°·2) 1°·8 below average, with frost every night. R ·67 in. below average.

XVI. *Dollar.* Cold and wet for the first fortnight, dry and fine for the last.—*Balquhidder, Stronvar.* Temperature very low, with a good deal of frost towards the close; sheep on the hills suffered greatly.—*Coupar Angus.* Cold, hard, and barren. Small R.—*Dalnaspidal H.R.S.* From 1st to 10th S fell daily, with frequent R, sleet, and H.

XVIII. *Loch Shiel, Glenaladale.* The first 9 days were very cold, wet, and stormy, with much S on the hills; during the last three weeks very beautiful, bright, and sunshiny weather prevailed, with winds varying from N.N.E. to S.S.E., and generally more or less frost at night.

XIX. *Watten H.R.S.* Dry and cold; a good month on the whole but frosty nights were too frequent.

XX. *Tralee, Castlemorris.* The weather for the first 12 days was very squally and showery; after the 19th it was very fine, with light winds from N.W. and S.E.—*Derrycastle* [*Killaloe*]. Wet and stormy, with very heavy falls of S from 7th to 10th. Afterwards fine and dry but very harsh.—*Nenagh, Castle Lough.* Cold, the hills frequently white with sleet and S.—*Newcastle West.* More like February, or March than April; much bitter E. wind, with H and fierce gales. The close, however, was fine enough to allow commencement of real spring work.—*Broadford, Hurdlestown.* The first part of the month was very wet, and farming work was much put back by it, the latter part was fine but cold.—*Miltown Malbay.* Very ungenial, inclement, and cold. The first half stormy, with heavy falls of S, sleet, H and R, preventing all agricultural work; the second half boisterous, with cold E. winds, and light frosts at night.

XXII. *Galway.* The first ten days were wet and squally; the remainder of the month was very favourable.—*Ballinamore, Lawderdale.* Cold, bleak and unseasonable.

XXIII. *Belfast, New Barnsley.* Cold and backward weather till 18th, after that fine and warm during the day, cold and frosty at night with E. wind.—*Ramelton, Killygarvan.* Severe for the first

nine days, but the remainder of the month fine. Mean temp. below, R above, the average.

MAY.

I. *London, Lansdowne Crescent.* R 4·84 in., all of which fell after the 10th. Probably the wettest May since 1843.—*Muswell Hill.* Remarkably wet, the total R (5·16 in.) being just two and three quarters' times the average of 14 years, and exceeding by 1·69 in. the wettest May of that period, that of 1878.—*Finchley, Etchingham Park.* The R was extremely heavy; the first nine days were quite dry, but R fell on 18 of the remaining 22 days, and on the 12th and 24th the amount recorded exceeded an inch.

II. *Hythe.* The first ten and the last four days were dry and fine; the remaining seventeen were either wet or squally.—*Christchurch, Mudeford.* R 4·40 in., the largest fall of the month ever registered here.—*Long Wittenham.* Total R 4·53 in., the heaviest fall in May with one exception since 1851, and 2·53 in. above the average.

III. *Broxbourne.* With three exceptions—July 1875 (5·86 in.), August 1878 (5·64 in.), and July 1880 (7·23 in.)—the wettest month since observations commenced in 1870; R 5·02 in.—*Winslow, Addington.*—The first ten days were fine and summer-like; the remainder of the month was cold and wet, with R almost every day, and very high wind at times. R more than double the average of 16 years, and, with the exception of May, 1878, the heaviest in that period.—*Banbury, Wroxton.* R 5·53 in. on 19 days; the wettest May since 1878, when 5·76 in. fell in 27 days.—*Northampton.* R 2·22 in. above the average of 20 years.

IV. *Harlow, Sheering.* R 1·70 in. above the average of 20 years.—*Ipswich, Bishop's Hill.* R ·30 in. above the average. Up to 10th no R had fallen for just a month; afterwards there were beautiful showers, but no very heavy falls.—*Diss.* The month commenced with a sharp frost, which nipped some of the early plants, then the weather continued bright though cold for ten days. From 10th to 18th there was daily R. The whole month was decidedly cold though improving at the close. Cereals, peas and beans looked well; garden produce was good, and young potatoes were strong and healthy.

V. *Torquay Babbacombe.* Wet, cold, cloudy and damp. The total R (4·23 in.), was the greatest recorded for May in ten years. Very

fine till 6th, afterwards showery and unsettled. Solar halos on 10 days, the greatest number observed here in any month.—*Ashburton, Holne Vicarage.* R, 1·94 in. above the average of five years.—*Temple Combe, Stowell Rectory.* Fine from 1st to 9th ; unsettled for the rest of the month.

VI. *Ross, The Graig.* R 5·49 in., the heaviest fall in May during 30 years ; the nearest approach was May, 1878, when 4·80 in. fell.—*Craven Arms, Stokesay Vicarage.* Greatest known floods, doing much damage to several bridges.—*Handsworth.* R (6·00 in.) 3·73 in. above the average.—*Burton-on-Trent.* Abnormally wet, with the exception of the first eight days. From 13th to 17th the river Trent was in high flood and the water just entered the town.

VII. *Leicester, Rotherby Hall.* The 5th, 6th and 7th were warm and summer-like, the temp. rising to 79° on the last day ; no R fell till 10th, but from then to the end of the month R was registered daily with one exception, yielding a total of 4·31 in.—*Melton Mowbray, Coston.* The first 10 days were warm and fine, but after 11th constant R with cold winds, checking vegetation and hindering agricultural operations.—*Nottingham, Strelley.* Very wet, R 3·50 in. above the average. No R till 7th, and only three dry days afterwards. Mean temp. about the average.—*Worksop, Hodsock Priory.*—Remarkable for the heavy R (6·15 in.) and accompanying floods, and for the absence of sunshine, only 106 hours being recorded, very little more than half the average of the previous five years. *Derby, Elvaston.* Dry until 10th, afterwards unsettled, stormy and unseasonable.

VIII. *Chester, Christleton Hall.* Very wet, R 6·64 in.—*Macclesfield.* The coldest May known here ; R more than twice the average, and the heaviest fall for May recorded.—*Frodsham, Foxhill.* R 7·67 in., the greatest monthly fall in 10 years.—*Hill Cliffe* [*Warrington*]. Very heavy R, 7·10 in.—*Liverpool, Walton-on-the-Hill.* Extremely wet and cold ; with the exception of 1885, about the coldest May experienced at this station. R greatly in excess of the average.—*The Hall* [*Todmorden*]. R (5·84 in.) 3·30 in. above the average of four years.—*Eccleston, Elswick Lodge.* R 4·02 in., the heaviest May R since 1878, when 4·42 in. fell, and 1·97 in. above the average of 14 years. —*St. Michael's-on-Wyre.* The wettest May in 11 years, R 4·55 in.

IX. *Stainborough, Wentworth Castle.* R 7·03 in. ; exceptionally heavy.—*Wakefield, Stanley Vicarage.* Very cold and wet.—*York, Cherry Hill.* R 1·74 in. above the average of 37 years.—*Scarborough.* Very dull and wet. R 2·91 in. above the average.—*East Layton* [*Darlington*]. Very cold and wet ; cutting N. winds prevalent.

X. *Shap.* Stormy; the heavy fall of S on 12th and 13th caused great loss among the lambs, and fears were entertained that fruit crops had suffered through the high winds. The close of the month was specially wet.

XI. *Llanfrechfa.* R greatly in excess of average.—*Llechryd, Castle Malgwyn.* Very wet.—*Crickhowel, Gwernvale.* Fine, excepting three days of heavy R, 1·70 in. falling on 12th, 1·20 in. on 13th, and 1·48 in. on 31st.—*Churchstoke, Mellington Hall.* Extremely wet; R 7·40 in.—*Hawarden.* Very wet (R 6·14 in.), with almost continuous R for 56 hours on 11th, 12th and 13th.—*Rosset, Trevalyn Hall.* R 6·77 in., nearly 4½ in. above the average.—*Llanerchymedd, Llydiarth Esgob.* Cold and backward.—*Douglas, Victoria Road.* The wettest and coldest May remembered. The gales from N.E. from 11th to 13th and from S.E. on 17th made terrible havoc with the young leaves.

XII. *Melrose.* Mean temp. (44°) 1°·2 below the average; R 1·87 in. above the average. Everything very late.

XIII. *Edinburgh, Blacket Place.* Very wet; R 4·20 in.

XVI. *Balquhidder, Stronvar.* Cold throughout, with occasional frost and frequent cold R.—*Cupar Angus.* Very cold, with prevailing N.E. wind, but few frosty nights.

XVII. *Craigellachie, Wester Elchies Garden.* R 5·06 in.; the heaviest monthly fall for some years.

XVIII. *Loch Shiel, Glenaladale.* Fine throughout.—*Skye, Armadale Castle.* The first half cold, the latter part warm and dry.—*South Uist, Ardkenneth.* Dry and cold on the whole, though some days were sultry and thunderlike.

XIX. *Watten H.R.S.* The first half cold and dry, the latter half cold and wet.

XX. *Fermoy.* Wet and stormy.—*Tralee, Castlemorris.* Very changeable; E. and N.E. winds prevailed during the latter part of the month.—*Tipperary, Henry Street.* Generally wet and cold.—*Derrycastle* [*Killaloe*]. The wettest and most changeable May since records commenced in 1879. The first few days were harsh and wet; it was fine from 5th to 10th, very wet on the night of 11th, and very heavy R, sleet, and S fell on the 12th and 13th. The ground was quite covered with S, and the branches of fruit bushes bent down to the ground with its weight. The S did not remain long, but the weather continued very stormy and wet until 19th; it was then very fine for four days, followed by heavy R.—*Venagh, Castle Lough.*—Wet and cold.—*Newcastle West.* A May of many weathers; vegetation

checked by frosts, which occurred nightly from 20th to 29th.—*Broadford, Hurdlestown.* Very wet and cold; very nearly as wet as January, with slight frost on many nights.—*Miltown Malbay.* Not genial, excepting the week ending the 10th.

XXII. *Clifden, Kylemore.* Fine to 11th, followed by N.E. wind with sleet showers to 13th, then fine and calm to 22nd; a good month for outdoor work.—*Ballinamore, Lauderdale.* Hard and unseasonable, with constant night frosts.

XXIII. *Belfast, New Barnsley.* Very cold, with sleet and S on 12th.—*Ramelton, Killygarvan.* Cold month, although there were a good many fine days. Some heavy H fell and very cold weather prevailed in the second week. R about an inch above the average; mean temp. nearly 3° below it.

JUNE.

I. *Muswell Hill.* A very dry month, the R (·65 in.) being less than a quarter of the average of 14 years, during which period there was only one June with a smaller R, viz., in 1877, when ·52 in. fell.

II. *Dorking, Abinger.* Very dry on the whole. Very cold weather set in about the middle of the month for a week, arresting to a great degree the growth of most things. The end of the month was hot and dry.—*Maidstone, Debtling.* R only ·32 in. on five days.—*Keston.* Cold, except during the last five or six days, when it was warm and bright.—*Littlehampton.* Very dry, but in this district the soil was moist below the surface. The hay crop was good everywhere, and the few showers that fell were good for the aftermath. Apples, pears and figs a failure, probably through cold nights; stone fruit, currants and gooseberries very good.

III. *Broxbourne.* Very cold winds to 21st, then fine, warm, sunny days set in, but the nights were still unusually cold.—*Buntingford, Throcking.* The driest June yet observed. R 1·50 in. below the average. No R fell between the 2nd and 10th, or after 22nd.—*Winslow, Addington.* Very variable, except from about the 25th, when fine haymaking weather set in; by the end several fields were cleared in fine condition. Nights mostly cold, the min. temp. having only twice been as high as 52°. R much below the average.—*Northampton.* R 1·24 in. below the average of 20 years; wind N.E. and S.E. for the first ten and the last two days.

IV. *Harlow, Sheering.* The driest June in 23 years; R 2·27 in. below the average.—*Ipswich, Bishop's Hill.* Very dry, R (·51 in.), 1·54 in. less than the average. Very cold, though there were some hot, bright days during the last week. Vegetation unusually backward; wheat ears not fairly out till 26th.—*Woodbridge, Melton.* Very dry and often cold.—*Diss.* Cold and rather dull weather, except from 23rd to 30th. Wind light and R extremely small, only ·36 in. Young crops looking particularly well at the close and garden produce abundant. Fires in general use till the end of the third week.

V. *Calne, Compton Bassett.* Dry, with cold winds at the beginning, but bright and sunny towards the end. Vegetation very late.—*Torquay, Babbacombe.* Dry and fine, but rather cold, and with frequent calms. R two-fifths of the average. The R and amount of cloud were the least observed in any of the past ten Junes, and the range of pressure (·522 in.) was the least in any month since observations were commenced in August, 1876. Solar halos on 7 days; fog on 4 days.—*Ashburton, Holne.* R 2·59 in. below the average of five years.

VI. *Ross, The Graig.* The wet weather which set in on the 10th of May lasted into this month. The fall from May 11th to June 2nd (23 days) was 6·63 in., a larger amount than in any corresponding period in this district since 1818. The dry, hot weather of the concluding portion of the month enabled the farmers to make progress with securing heavy crops in admirable condition.—*Burton-on-Trent.* On the whole warm, the last few days being very hot. R small and on few days.

VII. *Melton Mowbray, Coston.* The mean temp. of the month was low, the first part being chilly; the latter part was fine and much warmer. R more than an inch below the average of 12 years.—*Spilsby, Partney.* After the first day (when ·72 in. fell in a TS) a remarkably small quantity of R (only ·38 in.) fell.—*Horncastle, Bucknall.* Cold, dry, and cloudy till 24th; afterwards warm and sunny.—*Nottingham, Strelley.* Dry and very cold. R 1·25 in., and mean temp. 3°, below the average.—*Worksop, Hodsock Priory.* Colder, and with less R than any June of the previous ten and less sunshine than any of the preceding five. Half the R fell on 1st, so that the rest of the month was very dry.—*Derby, Elvaston.* Fine generally, but cold and ungenial until towards the end.

VIII. *Macclesfield.* Very cold and gloomy, except on 19th and 20th and during the last week, which was bright and warm.—*Liverpool, Walton-on-the-Hill.* Up till within a few days of the close the

weather was cold and unsettled throughout, but during the last few days it became somewhat milder, although the max. reading only just reached 70° in shade.

IX. *York, Cherry Hill.* R 1·37 in. below the average of 37 years.—*Scarborough.* Dry and cold, except the last few days, which were warmer.—*East Layton* [*Darlington*]. Dry and parching most of the month. During the latter part of the month S fell on some of the hills and quite a storm blew from the N. for more than a week.

X. *Barnard Castle, Whorlton.* The beginning and end of the month were warm, the middle was very cold and dull.—*Pawston* [*Coldstream*]. On 1st 1·21 in. of R fell, only ·23 in. during the remainder of the month, and none in the first week of July.—*Shap, Copy Hill.* The first day of the month was wet and very cold, and frosts at night did much harm to fruit during the first fortnight; after the 14th dry and warm.

XI. *Llanfrechfa.* Unusually dry and cold until the 25th, when warm weather set in.—*Douglas, Victoria Road.* Cold, dry, and ungenial; very stormy weather from 11th to 15th. Foliage (of poplars for instance) was not fully out at the close.

XVI. *Coupar Angus.* Extremely dry from 13th to the end.

XVIII. *Loch Shiel, Glenaladale.* Generally ungenial and at times inclement; some violent H storms occurred on the hills.—*Skye, Armadale Castle.* Showery and cold during the first half.—*South Uist, Ardkenneth.* Mild and warm, but with cold evenings and frequent H showers.—*Drumnadrochit.* Excessively dry, with light winds.

XIX. *Watten H.R.S.* The first part dry and fine; from 14th to 26th a series of storms of cold wind prevailed, sometimes accompanied by R, H, &c. So lengthened a cold season is rare in June, even in Caithness. The closing four days were dry, mild, and very fine.

XX. *Dunmanway, Coolkelure.* Unusually dry, with wind principally N. and E. till the last week, when it was mostly W. and the weather very warm. The growth of crops, especially grass, was very good, in spite of the absence of moisture.—*Fermoy.* A month of little R (·68 in.) and intense heat.—*Tralee, Castlemorris.* The first half fair, with showers, and misty; the latter part very fine, with light winds principally S. and S.W. From 25th to the end the weather was sultry and the nights were very close, as there was scarcely any wind. The rivers throughout the country were very dry at the close.—*Waterford, Newtown.* Remarkably dry; R ·54 in. only.—*Nenagh, Castle Lough.* Dry, with variable temperature; fires re-lit on Mid-

summer day.—*Kilkishen.* Warm and genial; meadows and grasslands made good growth.—*Broadford, Hurdlestown.* The first half wet and cold, but the last half very fine, some days being hot.

XXII. *Clifden, Kylemore.* The month was fairly fine, the end very warm, with light winds.—*Ballinamore, Lauderdale.* The first half cold and wet, the latter half warm and seasonable.

XXIII. *Belfast, New Barnsley.* From 7th to 17th nice showers, benefiting crops of every kind. From 17th to the end fine, except a few showers. From 25th to 30th glorious weather prevailed.—*Ramelton, Killygarvan.* R nearly up to the average; mean temp. below the average. There were three days of strong wind.

JULY.

I. *Mastrell Hill.* R nearly 25 per cent. above the average of 14 years. The first 10 days were fine, followed by a wet period up to 26th inclusive.—*Finchley, Etchingham Park.* A wet month on the whole. The first eight days were fine, then out of the next 18 days R was recorded on 13, and in the week from 19th to 25th 2·10 in. fell.

II. *Hythe.* The first nine days fine; the remainder very changeable, with TSS and frequent R.

III. *Buntingford, Throcking Rectory.* The dry weather of the previous month lasted until the 11th, after which R was frequent. There were no TSS.—*Winslow, Addington.* Early part very fine; latter part unsettled.—*Northampton.* R ·64 in. above the average of 20 years.—*Chatteris, The Priory.* Excessively wet; R 4·33 in.—*Thorney, Wryde House.* Very wet; R 4·73 in.

IV. *Southend.* A very wet month with low temp.—*Ipswich, Bishop's Hill.* R ·45 in. above the average.—*Diss.* First week very fine and dry; then warm days and cool nights till the last week, when true summer weather prevailed. The R was evenly distributed, so that there was no great drought. Crops, both cereal and root, looking well. Public health fairly good.—*East Dereham.* Temp. was high, rising above 80° on six days, and the R heavy.

V. *Calne, Compton Bassett.* First 10 days dry, bright and sunny, afterwards showery and cool.—*Torquay, Babbacombe.* R one-third above the average; temp. slightly above, but pressure, humidity and cloud all below their averages. No R was measured in the 26 days from June 15th to July 10th inclusive, the longest dry period ob-

served in 10 years. From 1st to 6th it was very fine, from 3rd to 6th very hot and dry. Temp. rose to or above 80° on three days, being the only time this has occurred more than once in any month since observations were commenced in August, 1876, and the max. (83°·3 on 4th) was only once exceeded in the same period—on July 26th, 1885.—*Ashburton, Holne Vicarage.* R ·50 in. above the average of five years.

VI. *Cirencester, Further Barton.* The heat and drought of the end of June continued until after the first week of July, when a change took place and quiet R came just in time to save the root crops.—*Ross, The Graig.* First week very hot and the ground much dried by the three weeks' drought; afterwards showery and cool with some bright weather. Although there were electrical clouds frequently, there was no actual TS.

VII. *Melton Mowbray, Coston.* The beginning of the month was very hot; the middle and latter part were variable, with frequent showers and sometimes very chilly, hindering the hay harvest.—*Nottingham, Strelley.* R about 1 in. above the average; mean temp. about the average. The first seven days very fine and warm; the remainder showery, hindering hay harvest.—*Mansfield.* July opened with very dry, sunny weather. There was an absolute drought from June 22nd to July 9th (17 days), and a partial drought from June 14th to July 13th (29 days), only ·22 in. of R falling during that period. The last half of the month was dull with frequent heavy showers, bringing up the R to ·25 in. above the average.—*Worksop, Hodsock Priory.* First week fine and warm, afterwards cool and showery.—*Derby, Elvaston.* A variable month; dry until 9th, then generally very unsettled to the close.

VIII. *Macclesfield.* Cold and wet, excepting 10 days. R 49 per cent. above the average; 3·33 in. fell in the week ending 27th, an amount nearly equal to the average for the month.—*Liverpool, Walton-on-the-Hill.* Although there were a few warm days during the month, it cannot be said that the temp. was high; in fact, towards the end it was very low. R (the greater part of which fell on 21st, 22nd, and 23rd) above the average.—*Cartmel, Holker.* R 7·04 in., the last three weeks being very wet.

IX. *York, Cherry Hill.* R the heaviest for many years past, and 2·29 in. above the average of 37 years.—*Scarborough.* There were some very warm days but changeable, and the last week was cold and wet. Aurora seen on several nights. No heavy TS, that on 25th

being only the fringe of the one experienced at York, Leeds, &c. R 1·12 in. above the average of 20 years.

X. *Barnard Castle, Whorlton.* Very warm and fine until the 8th; followed by much R and frequent high winds.—*Shap.* The early part dry and warm, and for the most part bright and clear; water scarce in many fields. After the 9th, R fell in great quantities and grass improved.

XI. *Llechryd, Castle Malgwyn.* Very fine and hot till 10th; subsequently much cooler, with a fair amount of R.—*Douglas, Victoria Road.* The dry weather which began on June 15th fairly broke up on July 10th, and the remainder of the month was an almost unbroken record of heavy rains, strong wind, and extreme cold.

XII. *Melrose.* Mean temp. 3°·8, and R ·34 in. below average; frost on two nights; wind, S. or W. on 24 days. Crops suffered from want of R, only ·09 in. falling from June 14th to July 11th.

XVI. *Balquhidder, Stronvar.* The day temp. was favourable for growth, but there was no hot weather, and the nights as a rule were cold.—*Coupar Angus.* R above, and mean temp. below, the average, though during the first six days both day and night temp. were high.

XVIII. *Loch Shiel, Glenaladale.* Damp and dull, with low temp. and not much wind.—*South Uist, Ardkenneth.* First half dry, calm, and sultry, with TSS threatening; a cold stormy week followed, and the last week was chilly but generally bright.—*Drumnadrochit.* Temp. generally low, and E. and N. winds prevailed.

XIX. *Watten, H.R.S.* Cold, cloudy, and windy, and only a few days together were summerlike. Frosts on several nights.

XX. *Dunmanway, Coolkelure.* The last three weeks unusually wet, but, owing to the long drought which had preceded, all crops and grass were much benefited, and no injury was experienced except where hay was out.—*Derrycastle* [*Killaloe*]. Very hot until 6th, afterwards very cool as there was but little sunshine. The continued wet weather during the latter half retarded hay-saving and turf (peat) cutting.—*Kilkishen.* First week warm and fine, stimulating the growth of crops.—*Miltown Malbay.* Cool and rainy, excepting the first week, which was very hot and sultry; scarcely any T.

XXII. *Clifden, Kylemore.* Mostly wet and stormy; very unfavourable for farmers.—*Ballinamore, Lawderdale.* Wet and unseasonable.

XXIII. *Belfast, New Barnsley.* Variable weather prevailed from 6th to 23rd, which was very good for all growing crops, though hay

suffered ; the 26th was a dull, cold day, like March ; the close of the month was fine.—*Ramelton, Killygarvan.* A pretty good month ; although the number of days on which R fell was large, the total fall was nearly the average ; mean temp. below the average.

AUGUST.

I. *London, Lansdowne Crescent.* The fifth consecutive dry August. R only ·72 in. ; none falling after the 19th. The last 10 days were hot.—*Muswell Hill.* R (·95 in.) little more than a third of the average of 14 years, during which only one August (1880) had ·63 in.—*Finchley, Elleray.* Very dry, the last 12 days being rainless.

II. *Maidstone, Debtling.* The beautiful weather at the end of this month (blue sky, almost cloudless), with heavy fogs at night, caused great damage to the Mid-Kent hop crop, the cones turning quite brown, scalded by the sun coming out quickly upon the fog.—*Keston Tower.* A pleasant month with moderate R ; very fine towards the end and the last two days very warm.

III. *Buntingford, Throcking Rectory.* Fine, no R after the 19th ; splendid weather for the harvest.—*Winslow, Addington.* Early part unsettled, but from the 20th to the close splendid weather—everything that could be desired for the harvest, which was late.—*Oxford.* Very fine and dry.—*Northampton.* R ·54 in. below the average of 20 years.

IV. *Harlow, Sheering.* R ·96 in. below the average of 20 years.—*Ipswich, Bishop's Hill.* R just half the average ; the last half of the month was very hot and dry.—*Diss.* Fine ; but during the first half the nights were cold. From 19th to 31st magnificently bright and warm. Harvest proceeding most favourably at the close. Summer diarrhœa was prevalent and a few cases of sunstroke in the harvest fields.

V. *Calne, Compton Bassett.* At first cool and dry, the middle showery, and the latter part very fine with bright sunshine.—*Torquay, Babbacombe.* Dry, fine and rather warm ; R two-thirds of the average ; R the last 16 days. The max. in sun (143°·2 on 7th) was higher than any observed in August in the previous 10 years, and has been only once exceeded, on June 24th, 1878.

VI. *Cirencester, Further Barton.* Very fine, but rather unsettled and showery from 9th to 18th ; the remaining days hot and sunny, though tempered by haze and occasional early morning fogs. The

absence of R was most favourable for the backward harvest.—*Burton-on-Trent.* On the whole fine and warm, the last six days especially so.

VII. *Melton Mowbray, Coston.* Harvest prospects were much hindered by the R and cold of the early part of the month, but the last 12 days made a great difference and ripened the crops considerably.—*Ketton Hall* [*Stamford*]. Very changeable and showery to 20th, when, after a thick fog early, the weather cleared and continued fine, and mostly bright until the close. The last two days very hot; max. 84° on 30th.—*Horncastle, Bucknall.* Unsettled and cool to 19th, after which fine and hot weather prevailed to the close.—*Nottingham, Strelley.* Temp. slightly above, R about an inch below, the average. No R fell after 19th.—*Worksop, Hodsock Priory.* A month of average temp., deficient sunshine and small R. A showery fortnight in the middle of the month, but no TSS to make up a large total. The fine week at the end of the month was most welcome for harvest. The first month in the year in which the mean temp. was not at least 1° below the average.—*Derby, Elvaston.* Variable and rather cool till 19th, then very fine and hot to the end.

VIII. *Macclesfield.* The middle very wet and unfavourable for harvesting; the last 12 days very fine.—*Liverpool, Walton-on-the-Hill.* Temp. low until towards the end, when it became much warmer. R considerably below average.—*St. Michael's-on-Wyre.* The driest August in 11 years; R 1·78 in.

IX. *Wakefield, Stanley Vic.* Magnificent harvest weather from 20th to the end.—*York, Cherry Hill.* R only ·06 in. below the average of 37 years.—*Scarborough.* Very changeable until the end, the last nine days being very warm.—*East Layton* [*Darlington*]. At the commencement everything was very backward, but a good number of fine days occurred during the early part, and in the last fortnight some very hot weather brought things forward.

X. *Barnard Castle, Whorlton.* Dull and wet until 20th, afterwards very fine and warm.

XI. *Llanfrechfa Grange.* Fine; the last three days very close and hot.—*Llechryd, Castle Malgwyn.* Fine and dry.—*Douglas, Victoria Road.* A miserable August, cold, gloomy and sunless, hardly relieved by one really summer-like day; the last 10 or 12 days, when such brilliantly fine and hot weather prevailed over England, were especially overcast and gloomy. The corn crop was quite green at the close.

XII. *Melrose.* Mean temp. 1°·7 below the average, with three

nights of frost; R 2·55 in. below the average. Harvest commenced on 30th, 12 days later than in the preceding year.

XIII. *Edinburgh, Blacket Place.* Very dry, R ·70 in., nearly half of which (·31 in.) fell on 10th.

XIV. *Glendrishaig.* Great want of sunshine and heat, with much cloud and fog.

XVI. *Dollar.* Cold generally, but dry.—*Balquhidder, Stronvar.* Night temperatures very low and very little sunshine during the day.—*Coupar Angus.* R very much below the average. During the last week the night temp. was especially high, culminating on 31st in a temp. of 58°·5, the highest recorded for five years.

XVIII. *Loch Shiel, Glenaladale.* A very bad harvest month, wet, warm, sunless and windless.—*Skye, Armadale Castle.* Wet and cold, especially the latter half.—*South Uist, Ardkenneth.* The first part of August was rather dry and warm; the weather took a turn about 9th and became very changeable, the mornings being often misty and cold, afternoons sometimes fine and warm; the end changeable with heavy showers.

XIX. *Watten, H.R.S.* Cold and cloudy, but afterwards fine and mild, with a good deal of sunshine.

XX. *Derrycastle* [*Killaloe*]. Very wet and disagreeable; although the total fall (3·59 in.) was not heavy, it fell on every day but four. The dense fogs and dampness which prevailed from the 15th were destructive to the potato crop, which up to then promised well.—*Nenagh, Castle Lough.* Most unsatisfactory for hay saving, as, even when but little R fell, the weather still looked threatening with, towards the end of the month, warm mists and fog which rapidly fostered the potato blight.—*Newcastle West.* Breezy, showery weather from 5th to 10th. From 15th to 25th a succession of dull days, with constant mists and fogs, and no sunshine.

XXII. *Ballinamore, Lawderdale.* Damp and cold; bad for harvest work.

XXIII. *Belfast, New Barnsley.* Variable throughout, with deficient sunshine.—*Ramelton, Killygarvan.* A pretty fine month, with R 1·50 in. below the average, but the number of days on which R fell was large in proportion. Mean temp. below the average.

SEPTEMBER.

I. *London, Lansdowne Crescent.* Very fine and warm throughout. No R fell between 10th and 25th.—*Muswell Hill.* R less than two-thirds of the average of 14 years, the wet period from 2nd to 10th, in which just upon an inch of R fell, being succeeded by a fortnight perfectly dry.—*Finchley, Etchingham Park.* Dry, both as regards the amount of R and the number of days (10) on which it fell.

II. *Dorking, Abinger.* Very genial and generally fine.—*Tenterden.* The driest September since 1865; R, ·88 in.; no R from August 20th to September 1st, and total fall for six weeks ending September 30th, ·92 in. Drought getting serious at the close, ponds nearly as low as in 1884 and 1885, and grass much more dried up, as those years had wet Septembers.—*Hythe.* The month opened with heavy TSS and R; but after 7th, generally dry and fine.—*Keston Tower.* Pleasant; very warm during the first half (the 1st being one of the warmest days of the year), and very favourable for agricultural operations. Hardly any leaves had changed colour at the close. —*Littlehampton.* Fine month on the whole, but unusually cold at night.

III. *Buntingford, Throcking Rectory.* Fine throughout; the driest September yet observed, no R falling between 2nd and 25th, except ·06 in. on 6th, and ·01 in. on 8th.—*Winslow, Addington.* The first ten days unsettled; fine afterwards.—*Northampton.* A fine month for harvesting corn, most of which was safely secured; R 1·62 in. below the average of 20 years.

IV. *Ipswich, Bishop's Hill.* R 1·26 in. below the average, the driest September since 1877.—*Rendlesham Hall.* Very dry, mostly fine and warm, with much E. wind.—*Diss.* Fine. Some cool weather with N. winds between 15th and 24th, but the rest warm and bright. Harvest well secured and abundant and good in quality, the roots being particularly large and fine. The public health was good.

V. *Calne, Compton Bassett.* First part dull and rainy, second part very fine and dry, the closing portion showery, but very mild. —*Torquay, Babbacombe.* Cloudy, damp and windy. The mean daily range of temp. (10°·6) and amount of solar radiation (44°·4) were the least, the mean (107°·7) and max. (128°·0) temp. in sun the lowest, and the mean amount of cloud (7·0) the greatest, observed in any of the past 11 Septembers—*Ashburton, Holne Vic.* R, 2·70 in. below the average of five years.—*Temple Combe, Stowell Rectory.* Warm and dry.

VI. *Cirencester, Further Barton.* Very warm, unsettled till 10th,

followed by a fortnight of dry warm weather.—*Handsworth.* R (2·19 in.) 1·48 in. below the average.—*Burton, Hoar Cross.* Bright with some heavy TSS.—*Burton-on-Trent.* Wet, with the exception of twelve fine warm days in the middle.

VII. *Melton Mowbray, Coston.* Very fine, the period from 11th to 25th, being especially favourable for harvest operations.—*Spilsby, Partney.* The smallness of the R (1·14 in.), was highly favourable for the ingathering of cereals.—*Horncastle, Bucknall.* Very dry, with variable temperature; warm at the close.—*Nottingham, Strelley.* Warm and dry; mean temp 1° above, and R 1·75 in. below, the average. No R from 12th to 25th.—*Mansfield.* Generally dull and unsettled till 12th, dry and cold to the 25th, favourable for harvest operations, then dull and unsettled to the close. R 1·70 in. below the average, and the smallest in September, with one exception for 16 years. No T or heavy R.—*Worksop, Hodsock Priory.* Dry and dull. R less than in any of the last ten Septembers, except 1884, and the sunshine less than in any of the last five Septembers, except 1881.—*Derby, Elvaston.* Fine and pleasant, with not much wind, and no extreme weather.

IX. *Scarborough.* Very warm until 14th, when temp. suddenly fell 20°; it continued low until 28th; the last two days warm. R 1·71 in. below the average.

X. *Barnard Castle, Whorlton.* Variable weather, with frequent high wind; fine at the close.—*Shap.* Wet and very unfavourable for the harvest.

XI. *Llechryd, Castle Malgwyn.* Rather wet.—*Douglas, Victoria Road.* Cold and wintry till 4th, followed by a very wet and stormy period till 12th. Cold, dry weather prevailed from 13th to 24th and gave a welcome spurt to harvest operations; afterwards wet and stormy.

XII. *Melrose.* Mean temp. 0°·5 above, and number of night frosts (4) 2 below, the average; R ·80 in. below the average.

XVI. *Dollar.* Wet and cold at the beginning; dry and fine in the middle; heavy R during the last few days.—*Balquhidder, Stronvar.* Very stormy, with very little sunshine; the third week dry; harvest very late, most of the grain being out at the close.

XVIII. *Loch Shiel, Glenaladale.* Wet; bad harvest weather; calm and dull during the dry period from 15th to 24th.—*Skye, Armadale Castle.* Close and warm through the greater part, showery at the commencement, and showers of sleet at the close.—*South Uist, Ardkenneth.* Rainy and cold, with H, L, and T.

XIX. *Watten H.R.S.* First three weeks clear and fine, with frequent frosts at night; the last week cloudy and windy.

XX. *Dunmanway, Coolkelure.* The wettest harvest within the memory of the proverbial "oldest inhabitant." Including the last week of August with this month, 27 days out of 37 were wet, with a R of 11·26 in.—*Fermoy.* R and stormy.—*Tipperary, Henry Street.* Wet and variable.—*Derrycastle* [*Killaloe*]. There was a week of good harvest weather from August 30th to September 4th, but thence to the 12th there was constant and often heavy R. Splendid weather night and day enabled farmers to save in splendid order much of the corn and hay, but the constant wet after left a good deal of both crops unsecured at the close. R above the average.—*Nenagh, Castle Lough.* Wet; unfavourable for harvest operations, except during the ten days between 14th and 23rd.—*Newcastle West.* On the whole a good month.—*Miltown Malbay.* At the beginning and end of the month wild, broken weather prevailed; ten days, from 13th to 23rd, were very fine and dry, and availed to save much of the harvest, which was in a precarious condition.

XXII. *Ballinamore, Lauderdale.* Until 14th, wet, cold, and stormy; from 15th to 23rd, fine and seasonable; from 24th to the close, wet and cold.

XXIII. *Belfast, New Barnsley.* Wet and stormy till 13th; fine and dry from that time till 25th, giving farmers every chance of gathering in the harvest.—*Ramelton, Killygarvan.* Some very fine weather, and the month generally was not bad. R slightly above the average; mean temp. below the average.

OCTOBER.

I. *Muswell Hill.* R. ·12 in. below the average.

II. *Dorking, Abinger.* Very changeable, with absence of frost, many flowers being still in bloom at the close.—*Keston Tower.* A warm month, the temp. very equable, and never falling to 32°; many calm days, and few trees had shed their leaves at the close.—*Littlehampton.* Very wet; warmer than usual; roses blooming throughout the month; foliage and flowers very little hurt at the close.—*Emsworth, Redlands.* Stormy throughout and remarkably warm; flowers blooming a second time, and shrubs shooting again; foliage turned colour, and leaves fell early.

III. *Winslow, Addington.* First week very fine and warm, the mean max. temp. for that period being 68°·6. No frost in shade.—*Northampton.* R ·97 in. above the average of 20 years.

IV. *Harlow, Sheering.* R ·47 in. below the average of 16 years.—*Ipswich, Bishop's Hill.* Unusually warm; R half an inch above the average.—*Diss.* Fairly pleasant, and generally extremely mild. Garden produce very abundant, but apples were scanty. An immense crop of outdoor figs ripened perfectly, and at the close they were still coming on. Public health fairly good, no sickness or epidemic prevailing.

V. *Calne, Compton Bassett.* Mild but wet; only one grass frost.—*Torquay, Babbacombe.* Wet, warm, dull, damp, gloomy and stormy. The warmest October since 1876, and the dampest and dullest of any for 11 years, with the least amount of solar radiation, lowest pressure, and greatest range of pressure. The first frost on grass of the season occurred on 17th.—*West Buckland, Devon County School.* R 8·44 in.; the wettest month in three years.

VI. *Cirencester, Further Barton.* Warm and damp, with some foggy mornings, but only one frost. Dahlias were not cut down, and trees were very late in losing their leaves.—*Ross, The Graig.* Very wet, no frost, and at the close trees were still generally green, and dahlias and other tender plants untouched.—*Burton-on-Trent.* Warm and damp, except a few days towards the end, when a cold E wind blew.

VII. *Melton Mowbray, Coston.* The mildest October observed here, dahlias being still uncut at the close. R more than an inch above the average of 12 years, though there were some very fine days.—*Ketton Hall* [*Stamford*]. Very changeable, especially in temp., with heavy R, and only five bright days.—*Nottingham, Strelley.* Wet and dull, but very warm, the R being 1·75 in., and mean temp. 4°·4, above the average. There were 21 rainy days.—*Mansfield.* Wet and unfavourable for the late harvest, part of which remained ungathered at the close.—*Worksop, Hodsock Priory.* Very mild and calm, exceptionally dull, and of average R. The mean temp. was 3°·5 above the average, and higher than in any of the previous 10 years.

VIII. *Macclesfield.* Mean temp. 2°·8 above the average; 70°·6 was registered on 5th, over 70° not having been previously recorded for October since 1869.—*Liverpool, Walton-on-the-Hill.* Very stormy throughout, especially about the 15th. R slightly above the average, number of wet days greatly so. Two slight TSS.

IX. *York, Cherry Hill.* R ·96 in. above the average of 37 years.—*Scarborough.* Very warm for the first three days, then dull and damp, without frost. Mean temp. 3°·3 above, and R ·81 in. below, the average.—*East Layton* [*Darlington*]. The worst harvest month for many years. Towards the middle of the month great fears were entertained of the entire destruction of the barley and oat crops in the western part of the North Riding. In the lower portions of the county large tracts of land were submerged. The month closed sunless, misty and rainy, and in the western part of the North Riding much of the corn remained to be carried.

X. *Sunderland, West Hendon House.* The foggiest month recorded in my observations, commencing 1865. I record the fog on a scale based upon the inverse ratio of the square root of the distance visible, in which 4 represents a distance of 32 miles visible, 8 of 8 miles, 16 of 2 miles, and so on ; and on this scale the average fog was 17·2 ; the highest previously recorded being 16·1 in December, 1882. The average of 21 Octobers is 10·0. There were no fewer than six days on which the average reached 35. In March, 1873, and August, 1877, there were four such days, the largest number previously. One fog lasted continuously from the middle of the 4th to quite 1 a.m. on the 7th, having disappeared by 7 a.m. ; this was probably a longer duration than the previous longest—that of June, 2nd to 4th, 1866. The month was also very cloudy, the amount of cloud being the greatest for any October, and only once exceeded, in February, 1879.

XI. *Llechryd, Castle Malgwyn.* Unusually wet, more R having fallen than in any other October for seven years ; houses and land in this district were flooded.—*Colwyn Bay, Bryn Euryn.* Exceptionally wet ; R 6·37 in.—*Douglas, Victoria Road.* Rather cold ; very wet and stormy from 11th to 17th. From 18th to 28th cold, strong E. winds prevailed; but on 29th the wind shifted to S.W., with high temp.

XII. *Melrose.* The wettest October since 1872, greatly protracting harvest. R 2·06 in. above the average ; mean temp. (43°·7) 3°·2 above the average, with nine night frosts ; wind moderate.

XVI. *Balquhidder, Stronvar.* Cold and wet ; crops were got in generally in very bad condition, after long exposure ; potato disease prevalent.—*Coupar Angus.* The month was exceedingly warm. The night temp. was very high during the first week.—*Dunkeld, H.R.S.* So damp that harvesting operations suffered severely.

XVIII. *Loch Shiel, Glenaladale.* The latter half exceptionally

beautiful, mild, calm, dry, and bright; the first week also very fine. —*Skye, Armadale Castle.* The early part warm and close, the middle very wet, and the latter part showery.—*South Uist, Ardkenneth.* Mild and pleasant, free from cold and frost, one night excepted. There were several heavy falls of R, but also frequent intervals of cloudless sky. The latter part calm, with aurora every night.

XIX. *Watten H.R.S.* Mild, dull and dry, with exceptionally high temp., most suitable for maturing the late corn crops.

XX. *Dunmanway, Coolkelure.* Wet, rough, and inclement.—*Derrycastle* [*Killaloe*]. Favourable for farm work, except from 9th to 17th, when it was stormy and very wet; low-lying districts were inundated, and the hay in field-cocks was seriously injured. During the first week, however, a great deal of hay was secured, and from the 18th to the close the weather was splendid for harvesting the potato crop. —*Nenagh, Castle Lough.* Rather wet.—*Kilkishen.* Very mild. R for the week ending 15th (2·63 in.) very heavy.—*Newcastle West.* Fine, though marked by some violent days.—*Broadford, Hurdlestown.* The middle of the month was wet, cold and stormy, and there were great floods, much hay on the banks of the Shannon being injured. Doon Lake was higher than for some years, and much turf along its shores was carried away.—*Miltown Malbay.* A good October, with an average R. The first half boisterous, with high S gales, which culminated on the 16th in a fierce Nor'-Easter, lasting for three days. The remainder of the month fine and mild.

XXI. *Enniskerry, Parknasilloge.* R 8·76 in., damaging corn which had not been secured early.

XXII. *Clifden, Kylemore.* Very stormy, with heavy rains.—*Lawderdale.* From 1st to 17th wet and cold, with high floods on 14th and 15th; thence to the close, seasonable.

XXIII. *Belfast, New Barnsley.* Fine and dry from 17th to 29th, helping farmers to get in the last of a late harvest.—*Ramelton, Killygarvan.* Comparatively fine—very fine from the 16th to the close. Temp. above, and R slightly below, the average.

NOVEMBER.

I. *Muswell Hill.* R ·27 in. above the mean of 14 years.

II. *Dorking, Abinger.* Wet and foggy till 17th, then mild and fine; frost at the close.—*Wallington.* Mild until the last week, but very damp,—*Hythe.* Showery and mild till 19th, then gloomy to the end.—

Wrotham. First part very wet, then a spell of warm, dry weather, and finally frost.—*Keston Tower.* Very wet till 18th, thence mostly fine, with a few frosty days.—*Littlehampton.* Wretched weather; flowers came into bloom all through the month and the rough wind spoiled them. Everything was growing at the close as in early summer, and leaves were still on the trees.

III. *Winslow, Addington.* Dull and damp until nearly the end; no fog to speak of until 25th; a sharp frost on 24th brought the leaves off the trees.—*Northampton.* R ·68 in. below the average.

IV. *Harlow, Sheering.* R ·64 in. above the average of 20 years.—*Ipswich, Bishop's Hill.* R ·58 in. above the average; temperature very high.—*Diss.* R not excessive, though much fell between 8th and 18th; foggy and dull from 24th to 29th; little wind or frost. Fine ripe raspberries were gathered in the garden on 22nd; autumn fruits and vegetables were fine and abundant.

V. *Calne, Compton Bassett.* Very mild, but dull, cloudy, and wet, with some slight frosts and several dense fogs.—*Torquay, Babbacombe.* Rather warm, damp, and cloudy. R nearly 25 per cent. below the average. The wind was unusually light for November.

VI. *Cheltenham.* Fine. Temperature somewhat above, and R below, the average.—*Ross, The Graig.* The wet weather which commenced on September 25th continued with little interruption till the 16th, 8·20 in. of R having fallen in the 53 days, of which only 13 were without R. Autumn flowers continued uninjured till the 8th, latter part fine, but wintry.—*Burton, Hoar Cross.* The first part bright and sunny; the latter part very dull and foggy.—*Burton-on-Trent.* Dull, damp, and misty throughout.

VII. *Melton Mowbray, Coston.* Low pressure with heavy R during the first half of the month; very high pressure with bright weather during the latter half; fogs from 24th to 27th.—*Ketton Hall* [*Stamford*]. Fine, only three days when the men could not work on account of R, very little fog.—*Nottingham, Strelley.* Dry and warm; R 1 in. below the average. Mean temp. 1°·4 above the average. Frosts in shade occurred on only four days, and the temperature of the soil was unusually high.—*Worksop, Hodsock Priory.* Mild and dry; mean temp. 1° above the average. R less than in any of the preceding 10 years, except 1884, and nearly all fell between the 3rd and the 11th.—*Derby, Elvaston.* First part unsettled and stormy; the latter part dry.

VIII. *Macclesfield.* Unusually mild and very damp; free from fog

except on 25th, and with only one slight frost.—*Walton-on-the-Hill.* Temp. steady throughout, although rather high; R about the average, number of wet days in excess.

IX. *York, Cherry Hill.* R ·51 in. below the average of 37 years.—*Scarborough.* Very fine and dry; trees budding, one lilac being quite green with buds on 28th. R ·80 in. below the average.

X. *Barnard Castle, Whorlton.* Much R, but mild until the last week.—*Bothalhaugh.* In November more than 3 in. of R fell in 48 hours, yet the flood was not so high as in 1877 or 1880 with a less fall, showing the dryness of the ground.

XI. *Llechryd, Castle Malgwyn.* Unusually wet, with very open weather, frost being registered on only one day.—*Douglas, Victoria Road.* November came in with two almost summer days, but thence to the 18th was extremely wet and stormy (the 10th excepted), succeeded by just a week of abnormally high pressure and temp.; from the 26th to the close wet, with strong S.W. gales. Several brilliantly fine days (with R at night), and many summer flowers were blooming luxuriantly at the close.

XII. *Melrose.* Mean temp. 1°·7, and R 1·97 in., above the average.

XVI. *Dollar.* Dry, fine and mild throughout.—*Coupar Angus.* R below, but number of wet days above the average. Day temp. very high from 20th to the close.—*Dunkeld, H.R.S.* Exceedingly mild.

XVIII. *Loch Shiel, Glenaladale.* Remarkably fine, mild and calm.—*South Uist, Ardkenneth.* Dull and heavy, with mist and fog on land and sea; the first week stormy and wet; the middle of the month mild and warm with some sunshine, but frequent heavy R especially at night.—*Drumnadrochit.* Unusually mild, with hardly any frost, and roses blooming in sheltered places.

XIX. *Watten, H.R.S.* Remarkably fine, mild and calm.

XX. *Derrycastle* [*Killaloe*]. Exceptionally mild. The R was below the average, and there was but slight frost, and no S worthy the name. First half very showery, but mild S. winds prevailed; from 18th to 25th very fine, thrushes singing merrily, but the closing days were chilling and wet, with stiff W. and N.W. winds.—*Broadford, Hurdlestown.* First half cold and wet; the middle very fine; and the last few days very cold.—*Miltown Malbay.* Very wet, with the exception of one week towards the end; temp. generally high.

XXII. *Clifden, Kylemore.* Cold, stormy and wet.—*Woodlawn.* Cold and damp.

XXIII. *Belfast, New Barnsley.* Altogether a good month; most of

the R fell at night. There was very little fog, and no frost except on the night of 20th, and there were 10 very fine days.—*Ramelton, Killygarvan.* R very near the average, both for amount and number of wet days; mean temp. about 1° above the average; wind lighter than usual.—*Buncrana, Rockfort.* Very mild.

DECEMBER.

I. *London, Lansdowne Crescent.* The coldest December since 1879, frost on 17 nights.—*Muswell Hill.* R 1·83 in. above the average of 14 years.—*Finchley, Etchingham Park.* Very wet both as regards the amount of R, and the number of days on which R fell.

II. *Dorking, Abinger.* Very changeable and trying.—*Hythe.* Very wet and cold; springs rose 25 ft. between 6th and 24th.—*Keston Tower.* Cold, spells of frost and S, alternating with milder weather. —*Emsworth, Redlands.* Remarkable for high temp. by day, and low temp. by night. There was frost every night after 15th, severe on 18th, 19th and 20th.—*Christchurch, Mudeford.* R, 6·00 in.; the greatest December fall since 1876.

III. *Buntingford, Throcking.* Cold, the mean temp. (34°·9) being lower than in any of the six preceding years.—*Winslow, Addington.* The wettest December registered here.—*Northampton.* R 1·75 in. above the average of 20 years.

IV. *Ipswich, Bishop's Hill.* Very variable. R 2·35 in. above the average. During the latter half there were some very cold nights. —*Harlow, Sheering.* R ·90 in. above the average of 20 years.—*Diss.* An old fashioned December, temp. falling on 2nd to 19°, with much S. From 16th to 21st inclusive, the temp. was exceedingly low. Frost continued severe at the close, and the S was still lying deep and hard. No great sickness prevailed.

V. *Calne, Compton Bassett.* Very changeable and unsettled, with some severe frosts and high winds.—*Torquay, Babbacombe.* Cold, very wet and stormy, with geat variations of pressure and temp. R nearly double the average, and the greatest since October, 1880.— *Ashburton, Holne.* R 3·94 in. above the average of five years.—*Bath, Royal Literary Inst.* R 6·10 in.; the heaviest fall since June 1879.

VI. *Cirencester, Further Barton.* Cold, though with some fine days, and a fair amount of sunshine.

VII. *Melton Mowbray, Coston.* Very stormy, although there were intervals of calm.—*Ketton Hall* [*Stamford*]. Wet and very changeable

in both temperature and pressure.—*Horncastle, Bucknall.* Mean temp. 6° below the average, with continuous frost after the 14th. The mean temp. of 21st (19°·7) was the lowest since January 17th, 1881. The most remarkable feature was the large amount of sunshine, the mean amount of cloud being only 3°·9 against 5°·3 in 1881, the lowest previous record.—*Nottingham, Strelley.* R about ·50 in. above, and mean temp. 2° below the average. Frost in shade on 19 days. —*Mansfield.* Cold and wet, R 1·55 in. above the average of 16 years, and much hard frost.—*Worksop, Hodsock.* The coldest December since 1879, with R much above the average. The duration of bright sunshine (61 hours) was more than double that of any of the last four Decembers. Mean temp. more than 2° below the average. The first half of the month was open, but frost prevailed during the second half, though no extreme cold occurred.—*Derby, Elvaston.* A variable month, sharp frost and wintry weather, with intervals of mildness and severe storm. Sixteen frosty nights.

VIII. *Macclesfield.* Very changeable; temp. below, and R nearly 60 per cent. above, the average of 30 years.—*Liverpool, Walton-on-the-Hill.* Very stormy and unsettled; temp. and pressure very unsteady.

X. *Barnard Castle, Whorlton.* Very cold, with hard frost, wind often high, and little S.—*Shap, Copy Hill.* Very cold and stormy, with strong gales; S on 14 days.

XI. *Llechryd, Castle Malgwyn.* Very changeable, with much R, and much severe frost.—*Churchstoke, Mellington Hall.* R 5·50 in., almost double the average.—*Douglas, Victoria Road.* Almost uninterrupted R, H and S, with several furious gales.

XII. *Melrose.* Mean temp. 6°·1 below the average. The frost was very severe from 17th to 21st. R 1·41 in. above the average.

XVI. *Dollar.* Mild and fine at the beginning; hard frost and S towards the end.—*Coupar Angus.* Very cold. Mean temp. 28°·2. Precipitation light, and all in the form of S.—*Dunkeld, H.R.S.* Exceedingly stormy, with frost, R and S.

XVII. *Banff.* S on seven days.—*Craigellachie, Wester Elchies School.* Frequent TSS, with S.

XVIII. *Drumnadrochit.* An unusual amount of S fell during the month, S or sleet being recorded on 15 days.—*Loch Shiel, Glenaladale.* Very wintry; very boisterous, with S on hills, from 6th to 11th; otherwise without much wind.

XIX. *Watten, H.R.S.* A series of not very severe S storms, with alternate frosts and thaws.

XX. *Tralee, Castlemorris.* Very unsettled, with sudden and frequent gales, which did much damage. S fell during the latter part of the month, but disappeared after a few days, as the wind backed to S.W., and brought a rapid thaw.—*Broadford, Hurdlestown.* Very wet and cold.—*Miltown Malbay.* Wild, boisterous, and rainy; only five days without R.

XXIII. *Belfast, New Barnsley.* Variable, spring and winter alternating. R heavier than previously recorded for December in 10 years.—*Limavady, Drenagh.* The wettest month ever registered here; R 6·35 in.—*Ramelton, Killygarvan.* Changeable and severe; but most of the bad weather was at night. R 1·70 in. above the average.

OBSERVERS' NOTES ON THE YEAR 1886.

ENGLAND.

DIVISION I.—MIDDLESEX.

HAMPSTEAD, ROSLYN HOUSE.—A good fruit year, notwithstanding a cold, wet spring and a wet October.

FINCHLEY, ETCHINGHAM PARK.—The distribution of the R was remarkably unequal—January, May, July and December all being wet, May especially so ; and February, April, June and August being dry, each of them, except April, having a total of less than an inch. The difference between these wet and dry months was very remarkable—January with 4·06 in. being followed by February with about a sixth of that amount ; May with 4·85 in. by June with less than a sixth ; July with 3·25 in. by August with just two-sevenths. There were three days on which more than an inch fell.

MUSWELL HILL.—R 1·11 in. above the average of 14 years. The departure of the falls of six months from the average was excessive, May, January and December each having about twice their average ; while June had less than a quarter, and February and August about one-third of their respective averages. The difference between the four wet months and the four dry ones is best shown by the fact that the aggregate for May, January, December and July was 17·41 in. ; while that for June, February, August and April was 3·46 in. only. The first eight months were alternately above and below the average.

DIVISION II.—SOUTH EASTERN COUNTIES.

HASLEMERE, GRAYSWOOD HILL.—R somewhat above the average, but there were some very dry periods in the early part of the year.

GODALMING, HASCOMBE.—R slightly above the average. R in early months below the average, but the deficiency was made up in May, November and December.

REIGATE, RINGLEY MEAD.—Frost occurred nightly from January 4th to March 18th, except on February 12th, 13th and 14th.

REDHILL, OXFORD ROAD.—During the year there were ten periods

of six or more consecutive dry days, the longest being 16 days from June 23rd to July 8th, and 13 days from August 19th to September 1st. The longest wet period was 13 days from September 3rd to 15th, and there were four periods of six or more consecutive wet days. The fall on six days exceeded an inch.

BENENDEN.—Another year of drought, though the very wet January and December, and the wet May and November, brought the total R above the average. The winter was very severe and was prolonged till March 18th, the ground being frozen too hard for sowing. Warmth with S. and S.W. wind from March 18th to April 10th brought on spring with a rush, but the cold, dry time afterwards checked growth. The wet May brought another large hay-crop, and the dry June and hot first week of July enabled it to be well made. Apples were scarce; plums superabundant; wasps entirely absent, except a few early ones in June. Corn was not so good as in 1884 and 1885, but there was a good time for harvest. There was an enormous hop-crop, larger than even in 1885, though heat and aphis spoilt the quality during picking. It was very fine and dry in the latter part of August and through September, and the ground was very dry till the October rains came. November was wet; bad for late sowing of wheat. Winter began early, with severe frost from December 1st to 4th, and S on 2nd. Another bad winter for sheep; farm-work almost at a standstill owing to frost, S, and R alternating.

TUNBRIDGE WELLS, CAMDEN PARK.—A cold year, though the end of September and the first week in October were very warm and fine. January and February were cold, and the first 16 days of March were remarkably cold, affording a striking contrast to the last 15, the average min. temp. of which was 3° higher than the average max. temp. of the first 16 days. The most remarkable feature in the R was the extremely small fall in February (only ·44 in.) and the heavy fall of the last three months (12·84 in.).

CANTERBURY, HARBLEDOWN.—The first two days of the year, though foggy, were the warmest in the first six weeks; there were 25 frosty nights in January and 16 in February. S fell at the beginning and end of February, and thick fogs prevailed in the middle of the month. S lay on the ground more or less till the 17th of March, but the latter part of the month was very warm. Brilliant sunny days occurred at the end of April and early in May. The summer months were not hot. In November there was little

sun, the end of the month being very dark, raw, and foggy. Dark, damp, foggy days prevailed in December also, after the 9th.

SEVENOAKS, RIVER HILL.—A cold year, with frost almost every night up to March 18th and from December 1st. Harvest and fruit crops were late.

OSPRINGE, LORENDEN.—The local spring from the chalk did not run from April till almost the end of December.

KESTON TOWER.—An abnormally cold winter and spring, followed by a summer of average temperature and freedom from drought. December very cold and variable. The fruit crops, except plums, were a failure.

RECULVER, BROOK.—The small R of February and March was favourable to the land, but the dry period from May 25th to July 12th checked the corn and was disastrous for keep; the heavy fall of July (2·18 in.) following, with little sun and low temp., blighted the wheat, and the August rains spoilt the barley, while a dry September (·98 in.) hindered ploughing.

HAYES, LAYHAM'S FARM.—Exceptionally dry and cold in February and March, making a good seed-time, but too severe for the wheat plant, which was, therefore, too thin to take advantage of a sunny, warm summer. A dripping May helped to give a good root crop, and a fine, dry June furnished a good hay harvest. Severe weather prevailed at the close.

MARGATE, APSLEY HOUSE.—R about the average, five months having been above the average and five below. From July 23rd to August 10th, a period of 18 days, no R fell.

BECKENHAM, FOXGROVE.—R exceeding one inch fell on 12th and 24th of May, besides the fall of R and S on December 26th. There were six other falls of R, exceeding half an inch, and heavy S on January 6th and 20th, March 1st, and December 17th. On January 7th there was skating after one night's moderate frost. February and March were very cold, with skating at the London Skating Club from 3rd to 18th of March. During summer there was very little green fly; there were no gooseberry grubs and no wasps, but there was quite a plague of flies of various species. There was no autumn frost till November 8th.

MIDHURST, COCKING. — The most dreary and sunless January and February remembered, though the February R was very small (·76 in.). The summer was cold, and vegetation was very backward until the middle of June. September was a lovely month, and the

heat exceptionally great in the first and last weeks. The R, from October 1st to the close (17·27 in.) was enormous.

EASTBOURNE.—Mean temp. of air 49°·8, mean temp. of sea 50°·9, duration of bright sunshine 1666 hours.

BRIGHTON, BLATCHINGTON ROAD.—After a beautiful September, with R only ·83 in., the last three months had a fall of 13·07 in., with frequent gales.

UCKFIELD.—R 2·85 in. above the average of 43 years.

MARESFIELD, FOREST LODGE.—R 4·97 in. above the average of 30 years, May being as much as 2·29 in., and December 2·61 in. respectively above the average, while February was 1·73 in., and September 2·30 in. below the average. Reverting to a subject to which I have referred in former years, I may call attention to the fact that during the last half of 1886, days and almost weeks passed without the slightest sign of any disturbance on the sun's surface, and yet, as we have seen, the year was an exceptionally wet one.

CROWBOROUGH, THE OBSERVATORY.—R ·53 in. below the average of 16 years.

WITHYHAM, LEYSWOOD.—A genial and fruitful year; all garden and agricultural crops good.

WEST COWES, HOLMWOOD.—R 2·82 in. above the average of ten years.

CHRISTCHURCH, MUDEFORD.—The wettest year since 1872.

EMSWORTH, REDLANDS.—A cold, wet year which began with mild, muggy weather and ended with 16 days of continuous hard frost, with no exceptional storm but that of December 26th. Frost occurred in the early part of May, and spring vegetation was three weeks late, though migratory birds appeared earlier than usual. A month's dry, hot weather occurred from June 15th to July 11th, and a good hay harvest was saved in perfect order; the corn harvest was below the average and very late. The autumn was exceptionally warm though stormy, flowers blooming and shrubs shooting a second time; trees turned colour and leaves fell early. December's heavy R caused unusual floods, but the great R of the 26th falling on a frost bound surface, ran off to the sea without penetrating into the earth.

SOUTHAMPTON, CADLAND.—R 3·25 in. above the average of 26 years.

ROPLEY.—The spring was remarkably cold and late. June was very dry, and the summer generally was dry, without much hot

weather. Harvest was late, and the yield poor. October was very wet, but November was most unusually mild and open, birds singing a good deal towards the close; December was cold throughout.

ALTON, EAST TISTED RECTORY.—A splendid hay crop; and the root crops were excellent, though wheat was very inferior. A good deal of T and L occurred in October and November.

BLACKWATER, HURSTLEIGH.—R 1·10 in. above the average of ten years. February, June and August were the driest months. January, May and October the wettest. There were three falls exceeding 1 inch in 24 hours.

HECKFIELD PLACE.—R about the average. January, with 9 days of S, and 12 of R. May and the last three months were very wet. February, June and August were very dry.

READING, EAST THORPE.—R almost exactly the same as the average of 10 years.

READING, PORTLAND PLACE.—The year was remarkable for the S storms of January. The spring was generally dry, except May, which was very wet. June and August were dry; July was showery after the first week; September was dry and generally warm; the R of October, November and December was very great, amounting to 14·08 in.

YATTENDON.—A long and severe winter was followed by a cold and late spring, but the copious R of May gave vegetation a good start, and green crops were abundant. The autumn was mild and open, but the year closed winterly.

SHRIVENHAM, ASHBURY VICARAGE.—S lay on the hills from January 6th to March 21st.

DIVISION III.—SOUTH MIDLAND COUNTIES.

WATFORD, WANSFORD HOUSE.—R about 4 in. above the average, though the fall of the summer quarter was below the average. The longest period without R was 18 days, from June the 23rd to July 10th; and the longest period with R every day was 13 days, from 10th to 22nd of May.

BUNTINGFORD, THROCKING RECTORY.—A fairly dry year, the R being less than in any of the preceding six years, with the exception of 1884. May was the wettest month with R (4·63 in.) more than 3 inches above the average. February, June and September were dry months. Of the total fall (24·85 in.) 11·90 in. fell during the day, and 12·95 in. during the night.

SLOUGH, LANGLEY.—R ·44 in. above the average of 14 years.

SLOUGH, UPTON PARK.—The R was very unequally distributed, January, May and December being very wet, February and August very dry.

WINSLOW, ADDINGTON.—1886 adds another year to the long list of wet years; having been exceeded only four times in 16 years. The R of the last three months amounted to 12·53 in.

STANTON ST. JOHN'S, WOODPERRY.—In January, February and March much S fell. From September 10th to 25th no R fell.

BANBURY, BLOXHAM GROVE.—Winter long and severe; spring cold and ungenial; summer gloomy with the exception of the latter half of June and August; about 12 days in September were fine and warm. October and December were very wet, with frost at the close of the year. No cereal crops were up to the average. A very disastrous year for the farmer.

MAXEY VICARAGE [MARKET DEEPING].—R 2·31 in. above the average of five years. There were four days on which upwards of an inch of R fell. From June 23rd to July 6th, a period of 14 days, no R fell; from 10th to 28th of May, a period of 19 days, R fell daily.

LUTON.—S fell on as many as 22 days, 13 of which were in January; fogs were neither frequent nor dense. T rains occurred on only three days, and were not heavy.

CAMBRIDGE, FULBOURN ASYLUM.—A remarkably fine, dry and warm year.

THORNEY, WRYDE HOUSE.—Harvest very deficient, the worst since 1879; apples and fruit generally, except plums, very scarce. There was little sunshine, and there were few TSS.

DIVISION IV.—EASTERN COUNTIES.

IPSWICH, BISHOP'S HILL.—R 1·11 in. below the average. February, June, August and September were much below the average; December very much above it.

LAVENHAM HALL.—Though the year was one of average R, or nearly so, the dry June most seriously injured the corn crops in sandy and light soils. The root crop was very good.

BURY ST. EDMUNDS, WESTLEY.—R ·23 in. below the average of 30 years.

WEYBREAD VICARAGE [HARLESTON].—January was a rainy month, with sharp frost at the close. A drought set in with

February (which was a very cold month), and thence until July the R was very, probably unprecedentedly, small. There was no wintry weather in November, though the R was considerable, and December, though stormy, was not wintry until its close.

DISS.—A very late, cold and flowerless spring was followed by a magnificent summer without extreme heat, and a fine autumn. The weather for haysel and harvest was simply perfect, and there were no droughts. Crops were good. Gardens were exceptionally brilliant. Apples were scarce, but other fruits good and abundant. With the exception of whooping cough no serious epidemic prevailed, and the year was a healthy one.

GELDESTON [BECCLES]. R 1·61 in. below the average of 20 years.

NORWICH, THORPE HAMLET.—A cold and ungenial winter and spring, and but little summer weather till August 20th, when a very fine period set in and continued with but slight intermission till the end of November. R about an inch below the average, the wettest months being July and December; while February and June were abnormally dry.

HILLINGTON RECTORY.—R ·76 in. above the average of 20 years. No fall of an inch in 24 hours occurred, nor any violent TS.

DIVISION V.—SOUTH WESTERN COUNTIES.

CALNE, COMPTON BASSETT.—The first two months bitterly cold, with sharp frosts and S. Spring cold and ungenial, with R and H showers. Summer dry, with intervals of bright sunshine. Autumn wet and cold. Dense fogs prevailed during Christmas week.

WEYMOUTH, LANGTON HERRING.—R 1·49 in. below the average of 11 years. A dry spring and summer compensated for by heavy R (13·30 in.) in the last quarter.

PLYMOUTH, NAVIGATION SCHOOL.—Mean temp. 1°·2 below the average, owing to cold nights; R 98 per cent. of the average; sunshine 33 per cent. of possible duration.

TORQUAY, BABBACOMBE.—A cold, wet year, with rather low pressure, but an average amount of cloud and relative humidity. The coldest since 1879; the wettest since 1877; R 7 per cent. above the average. The longest wet period was 18 consecutive days, March 24th to April 10th; the longest dry period 26 days, June 15th to July 10th, the longest observed since the record was commenced in August, 1876; there was also a dry period of 16 days, August 16th to 31st. Falls exceeding an inch in 24 hours occurred on four days. The

first six months and December were cold; from July to November inclusive it was rather warm. Very cold till March 17th, with much S in January. Spring showery; summer fine and dry, except from July 11th to August 15th; autumn mild, showery and stormy. Gales on 51 days; frosts in air on 42 nights, on grass on 121 nights; S on 38 days, the greatest number yet observed; TSS or T on 14 days, L only on 13, fog on 36, solar halos on 47 days.

AXMINSTER, GREAT TRILL.—The following dry periods occurred: —February 14th to 26th inclusive, 13 days; March 6th to 16th, 11 days; April 29th to May 10th, 12 days; June 15th to July 11th, 27 days; August 16th to September 1st, 17 days; November 17th to 26th, 12 days.

LISKEARD, DEAN TERRACE.—After three dry years the R was again above the average of 23 years, owing principally to the heavy fall (8·11 in.) in December.

CREWKERNE, BINCOMBE HOUSE.—R 3·50 in. below the average of 17 years. January, October and December were wet months; the others fairly dry. The following dry periods occurred:—February 3rd to 12th, 10 days; 14th to 27th, 14 days; March 6th to 16th, 11 days; April 29th to May 10th, 12 days; June 15th to July 11th, 27 days; August 16th to September 1st, 17 days; November 18th to 27th, 10 days.

ILMINSTER, WHITE LACKINGTON.—Temp. above the average of six years, except in January, February and December, and in the day time in March and November. There was little T.

MILVERTON.—R 5·29 in. above the average.

WIVELISCOMBE, WILLETT HOUSE.—R about 10 inches above the average.

EXFORD RECTORY.—Remarkable for long-continued frost at the beginning, for an unusual amount of R in October (10·67 in.), and for a heavy fall of S just before the close. R about the average.

STON EASTON.—R 3·76 in. above the average of 18 years.

EAST HARPTREE, HARPTREE COURT.—Summer and early autumn remarkably dry. From June 2nd to October 11th inclusive, a period of 132 days, only 10·66 in. of R fell.

DIVISION VI.—WEST MIDLAND COUNTIES.

ROSS, THE GRAIG.—R 25 per cent. above the average; the wettest year, except 1872, since observations commenced in 1859.

MUCH DEWCHURCH, BRYNGWYN.—A rather wet year, but the R

fell in a manner favourable for agricultural work. A remarkable R (7·75 in.) and flood occurred in May.

PEMBRIDGE, MARSTON.—R 4·19 in. above the average of six years.

BISHOP'S CASTLE, CASTLE STREET.—Owing to the excessive fall in May (8·27 in.) the R exceeds the average, though the falls of June and August were below the average. The comparative dryness of these months allowed the harvest to be gathered in good condition and of average quantity and quality.

BISHOP'S CASTLE, MORE RECTORY.—The temp. of the first three months was very low, and the R of May (8·32 in.) was very large, with some S; otherwise the year was of average character.

MIDDLETON-IN-CHIRBURY.—R 4·08 in. above the average of the seven years—1880-1886—and the wettest year of the seven.

WOLVERHAMPTON PARK.—The heaviest R in any year since the record was commenced in 1881.

PATSHULL GARDENS.—Remarkable throughout for cold and want of sunshine, there being only about four weeks of good summer weather at the end of June and beginning of July. R above the average. In May R fell for two days and three nights without intermission.

HANDSWORTH.—R ·90 in. above the average.

BURTON, SHOBNALL.—R 1·91 in. above the average of ten years, the longest period without R was 13 days, from 3rd to 15th of March.

BURTON-ON-TRENT.—The wettest year since 1882, when 38 inches fell. R 2·78 in. above the average of 12 years.

CHEADLE, TEAN VICARAGE.—The year was chiefly remarkable for the persistent low temp., with only a few slight interruptions, from the beginning of January till the fourth week in August. On August 21st a warm period set in, but the absolute max. in shade was only 83°.

LITTLE MALVERN, THE FARM.—A wet year, R falling, on the average, every other day.

STRATFORD-ON-AVON, AVONSIDE.—R ·06 in. below the average of 10 years.

KENILWORTH, THE SPRING.—During the 21 days from April 19th to May 9th there were only two wet days, with ·08 in. of R, and during the 37 days from June 2nd to July 8th there were only two days with a fall exceeding ·10 in., the total for the period being ·43 in.

COVENTRY, PRIORY ROW.—R about the average of 20 years; fruit was abundant, and there was a fine growth of vegetables and green crops.

DIVISION VII.—NORTH MIDLAND COUNTIES.

ROTHERBY HALL.—R 1·79 in. above the average of 18 years.

MELTON MOWBRAY, COSTON.—R slightly above the average of 12 years. February was very dry (·25 in.), and May very wet (4·50 in.). The latter part of the year was very stormy and unsettled, the gales in December being very marked.

UPPINGHAM, WEST DEYNE.—R very slightly (·07 in.) above the average of 13 years; but February (·25 in.) and June (·88 in.) were exceptionally dry, and four other months were decidedly below the average.

KETTON HALL [STAMFORD].—The year was chiefly remarkable for a very cold spring, the first half of March being especially wintry; vegetation was a fortnight late all the early part of the year, which was partly compensated for by a very fine period from September 11th to October 5th. There was very little T. Temp. fell very low at times all through the summer, but there was no frost worth mentioning until November 3rd, tender plants surviving out of doors to an unusually late period. The year was on the whole very favourable to vegetation.

LONG SUTTON, TYDD GOTE.—R unusually small until July, but in July exceptionally heavy (5·19 in.), greatly injuring cereal and potato crops. No heavy fall of R or S occurred, and there was an entire absence of anything like a TS or H storm.

SPALDING, PODE HOLE.—The first part of the year very rainy, in addition to which there was a May flood, and at the hay harvest, though the first part was fine the latter part was very wet. Altogether the R was far above the average.

SLEAFORD, BLOXHOLM.—More S than usual. May and October remarkable for heavy rains, the latter greatly injured the late corn crop.

ALFORD, THE BURIAL GROUND.—A late, cold spring and a warm dry autumn.

LOUTH, GOSPELGATE.—R ·73 in. below the average of 22 years.

ULCEBY, LIMBER GRANGE.—January and February were very rough, with S and frost, and the first half of March was still more severe. April and May were stormy and very wet. A fine and

very drying week in September (13th to 20th) saved the harvest, which was then secured in good condition. There was a good supply of water all the year, but pastures were very bad and the hay crop was very light.

NOTTINGHAM, PARK HILL.—A year of extraordinary variety and exceptional occurrences. The winter protracted till the middle of March; the extreme dryness of February (R ·36 in.); the excessive R of May, especially the 12th and 13th, from which floods resulted; the great heat of the end of June and beginning of July; and the storms and barometric variations of October and December characterized the year.

NOTTINGHAM, STRELLEY.—Cold, wet and sunless. The mean temp. of the first seven months and of the last month, below the average, the deficit for February being 5°·4. October was the only really warm month, its mean temp. being 4°·4 above the average. Mean temp. for the whole year about 1° below the average. R above the average in six months, the greatest excess being 3·45 in. in May. The greatest deficit was in February. The total for the year was about 3 inches above the average. The total sunshine recorded was less than for any year since the record commenced in 1880, though the winter months, January and December, were much brighter than usual.

MANSFIELD.—R 3·96 in. above the average of 16 years.

WORKSOP, HODSOCK PRIORY.—Very cold and dull, with slightly more than the average rainfall. The principal features were the long but not very severe frost in January and February; the heavy S storm on March 1st, followed by a fortnight of intense cold; the continuance of cold weather with only a few mild intervals up to the end of July; the tremendous rains, heavy floods, and absence of sunshine in May; a dry period in June, followed by showery weather to the middle of August and then dry weather to the end of September, which was of the utmost value for the harvest; a wet fortnight early in October, but the rest of the autumn dry and very mild, though rather dull; a cold, wet and snowy, but bright December; a general absence of severe gales and TSS, but two very deep depressions on October 15th and December 8th, the latter being unprecedented. The mean temp. was the same as last year, but lower than in any other of the previous ten, except 1879. The sunshine was less than in any of the previous five years. Vegetation was very late throughout the year, and farm work was much hindered by the

long winter and again by the floods in May; very few things were really killed by the frost, but the S in March made it a very bad time for lambing. Harvest was very late, but short and quick.

DERBY, ELVASTON.—The temp. was below the average during the first five months, particularly so in March, when the deficiency was as much as 7°, the weather being very severe until the 18th. February was very dry (R ·30 in.) From June to September ordinary summer weather prevailed, with many dry days. October was very wet and warm; November mild and very pleasant on many days; December very variable and often wintry. Mean temp. 46°·9.

STUFFYNWOOD HALL [MANSFIELD]. The largest R since 1883, with more S than usual.

CHESTERFIELD, BRIMINGTON HALL.—January stormy and wintry, with much S; May cold and wet; September, from 13th to 24th, favourable for harvest operations; October wet and unfavourable for late harvest in the Peak district; December cold and wet.

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHELFORD, ASTLE HALL.—R 1·06 in. above the average of 10 years. In January frost prevailed from 5th to 24th, with S at times. February and March, to the 17th, were also very cold, with frost almost every night. The autumn lasted long, and there was no frost to speak of till the end of November; trees retained their leaves till very late and plants bloomed again. Frost set in on December 16th and lasted without much interruption till the end of the year; much S fell, and at times R froze as fast as it fell.

NESTON, HINDERTON.—R about 8 per cent. above the average of 17 years.

FRODSHAM, FOXHILL.—There were four days on which more than an inch of R fell, which has not previously happened in 10 years. The spring was late, and a very severe gale, with exceptionally low pressure, occurred in the first week of December.

THELWALL.—S storms early in the year were heavy and frequent, and the permanance of S well into the spring was unusual; the last traces did not disappear till March 19th.

AIGBURTH, KELTON.—R ·35 in. above the average of 10 years.

BOLTON-LE-MOORS, THE FOLDS.—R ·10 in. above the average of 55 years.

SOUTHPORT, HESKETH PARK.—R 5·30 in. above the average of 14 years, and only exceeded in 1872, 1875 and 1877.

OVER DARWEN, ST. JAMES' VIC.—An average R as regards amount, but remarkable for falls of 1 in. and upwards on eight days. It is an unusual thing for a year's rain to present such torrential features.

LYTHAM, WOODVILLE TERRACE.—R 3·30 in. above the average of 10 years, having been exceeded only three times during that period. On only two occasions did more than 1 inch fall in 24 hours.

BLACKPOOL, SOUTH SHORE.—R 7·72 in. above the average of 31 years.

WHALLEY, SABDEN.—The spring was very late and cold, as was also the summer.

ECCLESTON, ELSWICK LODGE.—R 3·05 in. above the average.

BARROW-IN-FURNESS.—R 9·36 in. above the average of 14 years, and the greatest since 1877, when 54·20 in. fell.

CARTMEL, HOLKER.—R 11½ in. above the average of 12 years. A late spring was followed by a very moderate summer, with no remarkable heat.

CARTMEL, PIT FARM.—About the wettest year remembered, with nine days on which upwards of an inch of R fell. Harvest very protracted; wheat cutting commenced on August 26th, and the carting of oats was completed on October 25th. A heavy S storm occurred at the beginning of March, several sheep being covered by drifts and the Furness railway blocked near Kirkby and Miltown. R 13·74 in. above the average of eight years.

CARTMEL, BROUGHTON HALL.—R 7·12 in. above the average of 18 years, and only exceeded during that period in 1872 and 1877; an unusually large number of wet days, on nine of which more than an inch of R fell. In November R fell on every day but one. July, September and October were very wet, and, with November, more than brought up to the average the light R of the earlier six months.

DIVISION IX.—YORKSHIRE.

SHEFFIELD, TYLECOTE, RANMOOR.—The first three months very severe. S lying to a great depth on the hills around Sheffield most of the time. The grouse on the moors suffered severely and were seen seeking food in the town on several occasions.

WATH-UPON-DEARNE, CHAPEL STREET.—A cloudy year, with no severe TSS near us, and very few slight ones. R nearly 25 per cent. above the average of 20 years; the first three months very cold.

STAINBOROUGH, WENTWORTH CASTLE.—R 2·84 in. above the average of 10 years. The winter was severe, and the ground was

not free from S till March 21st. There was an exceptionally heavy R (7·03 in.) in May. Harvest was quite a fortnight late. The weather of September was favourable, but much corn, particularly barley, was stacked in October in bad condition, there being 21 rainy days in that month.

MELTHAM, HAREWOOD LODGE.—Another cold year, with continuous low temp. till the middle of March, frost in shade occurring on 64 of the first 78 nights. The summer was disappointing with, however, a few warm days at the beginning of July, and at the end of August. Very little T and L. The autumn was decidedly warm. R, rather above the average, February being very dry, May very wet, and December the wettest month since the record began in December, 1880.

DONCASTER, HATFIELD.—Cold and sunless, with R above the average ; a late, unprofitable harvest.

WAKEFIELD, ALVERTHORPE HALL.—The year opened with heavy R, 3·44 in. falling in January, succeeded by dry weather, only ·67 in. falling in February. R and S continued through March. Warm, genial weather followed up to May 12th, on which and the following day 2·98 in. of R almost destroyed the year's abundant prospect of fruit. From that time to July 25th the R was small, with warm, genial weather to the end of the season. The remarkable facts of the year may be stated to be comparative absence of sunny weather and of severe TSS, the only one occurring on July 25th. The absence of wind, especially through the latter part of the year, was no less remarkable.

HALIFAX, THORPE.—January, May, July, and December were very wet ; February was exceptionally dry.

BRADFORD, FARCLIFFE.—The first three months were very severe ; S fell on 12 days in January, 11 in February, and 9 in March, yielding 4·35 in.

LEEDS, HORSFORTH.—The first three months were very wintry, March not less so than the others, very heavy S storms occurring about the middle of that month.

OTTERBURN-IN-CRAVEN.—S fell on January 5th, and was followed by frost, alternating with small falls of S until March 17th ; S fell as late as May 12th.

OUGHTERSHAW HALL.—A long frost prevailed in the early part of the year, with S on the ground for 15 weeks, followed by a very wet spring. A fine season on the whole, with a good hay harvest.

SEDBERGH, BRIG FLATTS.—Very wet, especially the latter half.

HULL, BEVERLEY ROAD.—The first quarter was very cold, with many frosts; a fine summer and autumn followed.

HULL, DERRINGHAM.—The total R was 4·47 in. above the average of 37 years.

MARKET WEIGHTON, DALTON HALL.—The spring was very cold and vegetation very late; very heavy S storms occurred in March. In May bitter, cold winds covered the ground with green leaves from the beech trees.

DRIFFIELD, BEVERLEY ROAD.—A hard winter, continuing until March 20th, when a very sudden change occurred.

THIXENDALE.—Severe winterly weather continued, with little abatement, till March 21st., constant S cutting being necessary to keep the roads open, and drifts were very deep. On March 21st a very sudden change occurred, and in two days spring flowers were out in abundance. May and June were cold. The fruit crop was generally good, though apples were an exception.

MALTON.—R 1·84 in. above the average of 28 years.

MASHAM, BURTON HOUSE.—A cold year on the whole, with an exceptionally backward spring and wet autumn; remarkable also for its heavy rains.

AYSGARTH VICARAGE.—Much S fell in January and March. The long frost broke up on March 21st. In October and November there was neither S nor frost. In December S fell on the 11th, and frost set in on the 16th, both continuing to the close.

SCARBOROUGH.—The seasons were all very late, cold weather lasting long into spring, and the autumn being particularly mild, with a great deal of sunshine. June, August, and November were specially dry months. There was very little fog at the end of the year. In each month of the first seven the temp. was below the average; in each of the last five it was above it.

HAWES, HARDROW VICARAGE.—R 1·70 in. above the average of 12 years.

INGLEBY MANOR.—The year, with the exception of the last half of August and the whole of September, was very cold, especially from January 5th to March 18th, and the months of May and December. May and December were also very wet. All crops, except wheat, were very fair, notwithstanding the bad weather.

EAST LAYTON [DARLINGTON].—A year of floods, the country being under water in the middle of May and in the early part of

November. The autumn was wet and disastrous to farmers. It was essentially a year of white clover, honey and plums. It came in and went out like a lion, and no part of its existence was lamb-like.

RICHMOND, FORCETT PARK.—Much S in the first three months. May was fine and warm to 8th, when it set in cold and wet, the moor being covered with S on 12th. Harvesting was not finished till well into November.

DIVISION X.—NORTHERN COUNTIES.

BARNARD CASTLE, WHORLTON.—A dry spring and a dry June, with much R after.

CHESTER-LE-STREET, BIRTLEY.—R 6·48 in. above the average of 12 years.

SUNDERLAND, WEST HENDON HOUSE.—R 5·39 in. and 3·42 in. above the respective 10-year means—1860-69, 1870-79—the wettest year since 1878, which exceeded it by ·60 in. A remarkable year for heavy falls, 1 in. and upwards having occurred four times, with ·98 in. on a fifth occasion. The unprecedented S storm of March 1st to 3rd is the most salient feature of the year. There was a marked deficiency of W. and excess of E. winds, chiefly in the first four months, and in October a considerable excess of N.E. The year was but little more cloudy than the average, and the fog was scarcely equal to the average, but September and October formed a very extended period of dull weather. In October (using the scale described in Met. Mag., vol. XVII. p. 58) the average fog was 17·2, or 7·2 above the average of 21 years, and 1·1 higher than December, 1882, the max. previously.

HAYDON BRIDGE, RIDLEY.—R 15·18 in. above the average of 5 years.

BINGFIELD HOUSE.—A very prolonged winter, with heavy S (3 ft.) in March. Spring was very backward; strawberries, goosberries, and raspberries were late but abundant; the apple crop was moderate. Autumn was wet, especially October.

CHEVIOT, BROADSTRUTHER.—The early months were very wet, and S lay on the hills throughout February and March. June was dry and cold; October was wet; November was quiet and temperate; December was characterized by frost and S.

PAWSTON [COLDSTREAM].—A disastrous year for the agricultural interests, owing partly to the unexampled S storm of March. In

June and the first week of July very dry weather prevailed which, though it did not spoil turnips, proved very disastrous to oats on light soils.

WHITEHAVEN, IRISH STREET.—R 5·44 in. above the average of 10 years.

COCKERMOUTH, WHINFELL HALL.—R 4·34 in. above the average of 31 years.

COCKERMOUTH, BROUGHTON GRANGE.—R 6 in. above the average, with an unusual number of heavy falls, seven exceeding 1 in. A very wet autumn again retarded the ripening of crops and fruits, but no serious damage was done.

BLENCOWE SCHOOL.—R 7 in. above the average of 16 years. On seven occasions more than 1 in. fell in 24 hours, and on four others very nearly 1 in. The corn harvest, in the matter of cutting, was splendid, but R set in on September 25th, and completely spoiled the crop. Great mildness prevailed till the end of November. S lay on the hills on November 7th, but not in the valley till December 7th, a rare occurrence. Close, sultry weather scarcely prevailed at all, and the summer passed without T.

CARLISLE, WREAY VICARAGE.—R 4·41 in. above the average of 10 years.

BOWNESS, FALLBARROW.—Very wet in the early and later months, especially in January and December. June was exceptionally fine.

AMBLESIDE, NOOK COTTAGE.—R above the average in January, September, and December; about the average in the other months.

CROSBY RAVENSWORTH, REAGILL.—The oldest people here say they have never known so stormy a year nor one so bad for farming. In the early part there were several heavy falls of S, with rapid thaws for a time, then sudden change to hard frost. The time for both hay and corn harvest was very wet; the corn crops were much damaged and were not secured until late in October—a considerable part not till late in November.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

NEWPORT, GOLD TOPS.—A remarkable year in several respects. The temp. of the greater part of March was very low, 19° being registered on 9th, and S, which fell on February 28th and three following days, remained on the ground up to the 20th. May was a wet month. R 7·09 in., of which 3·28 in. fell on two days, 12th

and 31st. In June, of the ·75 in. registered, ·30 in. fell on 1st; a drought commenced on 14th and continued for 26 consecutive days without a drop of R.

NEATH, FAIRY LAND.—The R of October (8·93 in.) was the largest, and that of June (·92 in.) the smallest, monthly fall in three years. In the four days—October 14th-17th—8·33 in. of R fell.

CASTELL LLWCHWR, PENLLERGARE. — A fine summer followed frosts in February and March; the R of the last four months was nearly half the total fall, which was considerably above the average.

ST. DAVID'S.—Much wet and cold weather prevailed. July and August were fine, October and December exceptionally stormy. There were good hay crops, and fair average corn crops.

NEW RADNOR, DOWNTON.—A year of storms and heavy downpours. More than 1 in. of R fell on six days. On the whole, however, the season was not unfavourable for agriculture; for, though the cold weather of May and early June, which succeeded the heavy R of May 11th to 13th (5·01 in.), was unfavourable to the growth of the grass, the magnificent summer weather which followed, from June 15th to July 11th, enabled the hay-crop to be gathered in excellent order. Then the constant mild R of the last three weeks of July, falling on the warm earth, ensured an abundant root crop. The harvest in this district was generally secured in good condition in the very favourable weather of August and September, but the last three months of the year were miserably wet, nearly 17 inches of R having fallen in that period.

RHYL, SEDGLEY HOUSE.—A very wet, cold year, with very little sunshine.

RUABON, WYNNSTAY.—R about 3 inches above the average.

ROSSET, TREVALYN HALL. — Very low temp. prevailed from March 1st to 18th. The summer temp. was generally below the average, but the autumn (especially October) was unusually warm. R 2·33 in. above the average of 15 years, owing entirely to the extraordinary fall in May (6·77 in.), which was more than 4·50 in. above the average. August was very dry (R ·67 in.). S fell on 20 days.

LLANERCHYMEDD, LLWYDIARTH ESGOB.—R 9 inches above the average of 15 years.

DOUGLAS, VICTORIA ROAD.—A wretched year; cold and wet throughout. March 1st will be remembered for a snow-storm of great severity, and severe weather prevailed until the 18th. May

was very cold, with quite abnormal R. June was dry and cold; and about a fortnight towards the end of June and beginning of July was the only approach to summer weather. After the 10th, July was stormy, cold, and wet. November and December were terribly wet, the latter being also cold and stormy and remarkable for the great storm of 8th to 10th.

JERSEY, HASTINGS TERRACE.—June was remarkably dry (R ·69 in.) while October (R 7·90 in.) and December (R 7·08 in.) were phenomenally wet; September was for the most part very fine.

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

DALBEATTIE, COLVEND MANSE.—R much above the average of many years.

MELROSE.—A cold and wet year. Crops, both corn and potatoes, were very late, and there was great difficulty in securing them on account of excessive R and little wind. Mean temp. (40°·9) 1°·4 below the average. R 5·77 in. above the average.

DIVISION XIII.—SOUTH EASTERN COUNTIES.

SELKIRK, THE HANGINGSHAW. — A year of most changeable weather, with heavy falls of R, very little T, and very little hot weather.

MARCHMONT HOUSE.—Generally cold. Heavy R in March and May retarded the growth of cereals, making the harvest late, and the continuous R of September, October, and November completely destroyed the grain crops in this locality.

EAST LINTON.—Wet and very variable, with sudden changes of temp.; yet the crops were good, and fine weather prevailed during harvest. R 4·64 in. above the average.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

BIGGAR, CAMBUS WALLACE.—The spring very cold and ungenial and also the greater part of the summer. There were a few days of sunshine and heat at the end of August and beginning of September, in which cereal crops ripened very rapidly, but there was great difficulty, owing to continuous R in autumn, in getting in the crops, and in many cases they were greatly injured.

COATBRIDGE, LOCHWOOD.—After the first week in January much frost prevailed till well on in April, and in March much S fell, rendering roads impassable for vehicles from 2nd to 5th.

BARRHILL, DOCHROYLE.—R 12·18 in. below the average of 11 years; and the smallest fall in that period, 78·34 in. in 1877, having been the largest.

COLMONELL.—R 5·80 in. and mean temp. 1°·8 below the average of 10 years.

DIVISION XV.—WEST MIDLAND COUNTIES.

BALLACHULISH.—Spring cold, frosty and ungenial, and vegetation greatly retarded; autumn wet and harvest very late. Migratory birds came early, notwithstanding the ungenial character of the spring; they also left earlier than usual, and swallows were less plentiful than in former seasons.

ISLAY, ARDBEG.—The summer was not of average heat; autumn was good and crops in this island were well got in, while in the east of Scotland all the late districts were overtaken by wet and stormy weather, proving very disastrous to crops.

DIVISION XVI.—EAST MIDLAND COUNTIES.

KINROSS, TURFHILLS.—The winter was long and severe, continuing till the middle of March; the first day's ploughing, after a stoppage of 20 weeks, was on March 23rd. A long drought and cold winds in June did great harm to grass and crops; a late and disastrous harvest followed, grain was much damaged and not stacked till November.

STRATHMIGLO, LODEN URQUHART.—From September 25th to the end of November dull, moist weather prevailed.

CALLANDER, LENY.—The first three months were severely wintry; the thermometer registered 60° on March 24th, but winter returned on 29th. A damp, sunless summer followed, and a very late and protracted harvest. Roses continued to flower all through November.

COUPAR ANGUS.—R below the average. There was an absence of spells of excessive heat during summer; harvest time was remarkably cold and wet, and December cold and dry.

ARBROATH.—R ·46 in. below the average of 44 years.

DIVISION XVII.—NORTH EASTERN COUNTIES.

FETTERCAIRN.—A year of average R, April and August being drier than the average, and May and July wetter.

DRUMOAK, DRUM CASTLE.—R considerably the lowest in 20 years. The fall, except in May, was exceedingly small up to the end of September, but October and the early part of November were very wet.

ABERDEEN, BRAEMAR PLACE.—R nearly 5 inches below the average.

MIDMAR, BLACKSTOCK.—Coldish and dry, with almost no T; crops were good, but harvest time was wet.

ELLON, KERMUCK.—The first three months were rigorous and wintry; the summer was rather bleak and clouded, but on the whole not unfavourable for crops, which, however, were late through want of sunshine. December from first to last was marked by S and frost, with short fitful thaws.

OLD DEER.—A sunless season throughout, spring and summer being unusually cold. Crops of all kinds were good, but grain crops were considerably damaged by a wet and sunless harvest. Springs were very low and a large number of wells completely dry. Had there been the usual amount of sunshine the crops must have suffered from drought.

CULLEN HOUSE.—A cold, backward season, with very little real summer weather. Crops in the inland districts were got in with difficulty, and in many cases were much spoiled by bad weather.

GORDON CASTLE.—Spring very cold and late; summer also colder than the average; autumn warm till nearly the end of October; November a fine month; December very cold, with much frost and S.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

LOCHBROOM.—On the whole a good year, though rather damp; the first and last months, however, were very stormy.

ALNESS, ARDROSS CASTLE.—An open winter; a cold wet spring; a drier summer than usual and a very wet autumn.

EDDERTON.—The driest year in my experience, yet white crops and green crops were a fair average. The R in May being above the average may account for the corn crops being good. Hay was light, owing to the June R being small. Wells were dry even at the close.

SOUTH UIST, ARDKENNETH.—The first part of the year was wet and disagreeable without severe storms. March, April, May and June were very dry, but rather cold. July and August were fine with heavy showers; the beginning of September was very stormy, the latter part and October were warm and genial and fine for harvest.

DIVISION XIX.—NORTHERN COUNTIES.

SCOURIE.—The year opened stormy with heavy rains and occasional S and frost; the spring was dry and cold; the summer was for the most part cold, with mist and R and no continuance of hot weather; harvest-time was fine and mostly dry; heavy rains occurred in the close.

WATTEN, H.R.S.—A severe winter, a dry spring, a cold summer and a mild genial autumn. R below the average.

IRELAND.

DIVISION XX.—MUNSTER.

CORK, BLACKROCK.—R 2·19 in. above the average of 21 years. Mean temp. 49°·5.

CORK, SUNDAY'S WELL ROAD.—The R was barely the average, but the number of rainy days was large. Owing to the equable distribution the valley of the Lee was not flooded. There was a rainless period of 16 days ending June 27th, and in the 30 days ending July 9th only ·15 in. of R fell, while there was a period of 30 consecutive days with R, ending April 12th. Slight falls of S occurred in January, February, March and December. There was very little T and L.

KNOCKADERRY.—The great number of days on which R fell had a disastrous effect on grain crops.

TIPPERARY, HENRY STREET.—R about an inch above the average.

DERRYCASTLE [KILLALOE].—Number of wet days the greatest and R the heaviest since 1879 inclusive, except in 1883, when 56·23 in. fell.

NENAGH, CLASHNEVIN.—The liberal R of April, May and June made the crops fairly good, and in early situations they were well saved, but some in late situations suffered much from the rains in the latter part of September and October; some of the hay crop was badly saved on account of the continued R in July and part of August.

NENAGH, CASTLE LOUGH.—R rather above the average of 10 years. More than an inch was registered on seven days. Very few TSS occurred, L being seen only twice.

NEWCASTLE WEST.—The year as a whole was wet.

BROADFORD, HURDLESTOWN.—A cold, wet, nasty year; crops very bad all round.

MILTOWN MALBAY.—An unfavourable year in every respect. Cold, rainy weather, with much S and severe frost, prevailed during all the spring months, particularly in March and the first half of April, retarding tillage and vegetation. This continued until June 25th, when heat set in. July was rainy, but on the whole warm. August the same, having only five days without R. The autumn months generally were characterised by slow, bad weather for harvesting. November and December were very wet, the latter stormy. No great TSS occurred during the year, and but one severe gale, that of December 8th.

DIVISION XXI.—LEINSTER.

NEW ROSS, LONGRAIGUE.—R 2·14 in. above the average of 17 years.

LAVISTOWN.—The early part of the year was dry, but remarkable for want of sunshine. The harvest months, September and October, were disastrously wet, causing much loss.

ABBEY LEIX, BLANDSFORT.—R 2·70 in. above the average of 12 years.

STRAFFAN HOUSE.—The spring was wet, cold, and very late; June and July were very hot. October was the wettest month, and June the driest.

DUBLIN, PHŒNIX PARK.—R 2·22 in. above the average of 10 years, and number of wet days the greatest in any year since 1853.

BALBRIGGAN.—R 2·12 in. above the average of 10 years; there were four days on which more than 1 inch fell.

TRIM.—Remarkable for very high floods, sweeping away shaky bridges, and flooding lands that were never flooded in previous years.

EDGWORTHSTOWN, CURRYGRANE HOUSE.—The wettest year since observations commenced, in 1879, with the greatest number of wet days; 1 in. or more of R fell on four occasions. Crops, however, did not suffer greatly, as 10 dry and bright days occurred from September 13th to 23rd, affording time for the crops to be housed.

DIVISION XXII.—CONNAGUHT.

TUAM, GARDENFIELD.—R considerably over the average. June was dry; July dry to 10th, afterwards generally wet.

LAWDERDALE.—The year may be considered a wet one both as regards quantity of R and number of wet days.

DIVISION XXIII.—ULSTER.

ENNISKILLEN, FLORENCE COURT.—Cold and dull, with less than the usual amount of sunshine and fully the average R. No remarkable floods occurred.

LURGAN, BELLE VUE.—R above the average, especially in May and December. In the last three months 11·44 in. fell.

BELFAST, NEW BARNSLEY.—Very severe weather prevailed till March 18th, thence to 28th it was fine and spring-like. From March 29th to the end of April was cold and backward, and S lay on the hills from the 12th to the 15th of May. Vegetation progressed rapidly during June and July, though the middle of the latter month was bad for hay-making. From August to the end of October good weather for all growing crops prevailed; the season, however, was fully three weeks late, and the reaping and storing of the grain-crop was very difficult on account of the sudden changes from dry to damp weather. November was a remarkable month, with only one fog, and, though wet, most of the R fell at night, there being 10 very fine days, 12 fine, and 8 showery or damp. In no December since 1876 has the R been so great as this year.

STEWARTSTOWN.—R about the average.

RAPHOE, CONVOY HOUSE.—The year was one of low temp. and the R considerable, especially in the summer months. The winter was cold, and the snow-fall unusually great.

RAMELTON, KILLYGARVAN.—January was a severe month, a great deal of S falling and the weather being very changeable. S fell also in February, March and April, and December was severe and changeable, with heavy S. There was not much summer weather, although the total R for June, July and August was below the average. Little T or L.

HEAVY RAINS IN SHORT PERIODS IN 1886.

THIS year, like its immediate precursor (1885), was noticeable for the paucity of thunderstorms—indeed we have seen it asserted that there were no thunderstorms during the year, but that is a gross exaggeration. The heavy falls quoted in the following table occurred on 16 different days, and at least 13 out of the 16 were days with thunderstorms.

Some of the falls this year are rather noteworthy—"1·03 in., nearly all of which fell in 15 minutes," at Walton-on-the-Hill, Liverpool, is a heavy fall; and 2·58 in. and 2·50 in. in an hour, the produce of the great thunderstorm on July 25th, at Brooklands, Sale, Cheshire, and at Stanley Vicarage, Wakefield, respectively, are still more so. Five gauges in Lancashire and South Yorkshire were allowed to run over, and therefore their records are not available, otherwise they would doubtless have swelled this list, and one gauge in Shropshire was upset by the May flood. But even taking the above two, there has been no record approaching them since 1880. In fact, the only analogous falls for 15 years have been—

1880	July 22.....	Ash Hall, Glamorgan	2·90 in. in 30 minutes.
,,	June 25.....	Twyford, Athlone	3·07 in. in about 1¼ hours.
1878	June 23.....	Camden Sq., London	2 34 in. in 30 minutes.
1875	July 1	Harbledown, Canterbury ...	2·12 in. in 20 minutes.
,,	July 22.....	Sunnyside, Trowbridge	2·53 in. in 1 hour.
,,	June 29.....	Cardington, Bedford	2·50 in. in 1 hour.
1873	July 28.....	Fettercairn, Kincardine	2·60 in. in 1 hour.

It is noteworthy that all these dates are between June 22nd and July 29th, the mean date being July 10th, which is, within a week, the date of maximum yearly temperature. If a digression may be pardoned, I would remark that this agrees perfectly with the view which I have always held, that the two maxima in the curve of monthly total rainfall are due to different causes—the maximum in July to thunderstorms, that in October to long-continued rains. The winter maximum in December or January, in mountain districts, is due to condensation by the coldness of the mountains.

Heavy Falls in Short Periods in 1886.

Date.	Division.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
May 21 ...	I.	London, Camden Square	·12	...	2	3·60
Oct. 3 ...	VII.	Leicester, Town Hall Square..	·18	...	3½	3·08
July 21 ...	IX.	Ingleton, Halsteads	·61	...	9	4·07
June 13 ...	I.	Kensington, Edith Road	·31	...	10	1·86
July 21 ...	VIII.	Liverpool, Walton-on-the-Hill	1·03 ?	...	15	4·12 ?
Oct. 3 ...	VII.	Leicester, Town Hall Square..	·46	...	15	1·84
Sept. 5 ...	V.	Falmouth Observatory	1·00	...	20	3·00
June 10 ..	X.	Appleby	·50 ?	...	20	1·50 ?
July 25 ...	IX.	Meltham, Harewood Lodge...	·40	...	20 ?	1·20 ?
,, 7 ...	VII.	Leicester, Town Hall Square..	·57	...	23	1·48
Sept. 3 ...	I.	London, Lansdowne Crescent	·62	...	25	1·49
May 21 ...	,,	,, ,, ,,	·93	...	30	1·86
Sept. 3 ...	,,	Kensington, Campden Hill ...	·50	...	30 ?	1·00 ?
June 2 ...	IV.	Dunmow, High Roding.....	·74	...	35	1·27
Aug. 9 ...	II.	Lewes, Iford	·87	...	40	1·31
April 24 ...	V.	Bishop's Cannings	·66	...	40	·99
Aug. 13 ...	VIII.	Manchester, Stretford	1·00	...	45	1·33
Oct. 6 ...	XIII.	Edinburgh, Blacket Place.....	·92	...	47	1·17
July 21 ...	IX.	Ingleton, Halsteads	1·29	...	49	1·58
,, 25 ..	VIII.	Sale, Brooklands	2·58	1	0	2·58
,, ,, ...	IX.	Wakefield, Stanley Vic.	2·50	1	0	2·50
April 24 ...	VI.	Andoversford. Hampen.....	1·15	1	0 ?	1·15 ?
Oct. 8 ...	II.	Maresfield, Forest Lodge	1·01	1	0	1·01
July 21 ...	X.	Shap, Copy Hill	1·00	1	0	1·00
June 2 ...	VI.	Ross, The Graig	·95	1	0	·95
July 25 ...	IX.	Denshaw, New Year's Bridge	2·19	1	10	1·88
,, ,, ...	VIII.	Milnrow, Piethorne, Kitcliff..	1·88	1	10	1·61
,, ,, ...	,,	Manchester, Stretford	1·54	1	15	1·23
Sept. 4 ...	XI.	Swansea, Morriston	1·93	2	0	·97
Oct. 8 ...	IV.	Ipswich, Belstead Hall.....	1·80	2	0	·90
June 2 ...	XI.	Glasbury, Woodlands	1·27	2	0	·64
Dec. 26 ...	V.	Bude	1·22	3	0	·41
Sept. 5 ...	XIV.	Ardrossan, Kirkhall	1·30	3	30	·37
Dec. 26 ...	V.	Plymouth, Navigation School	1·60	6	0	·27
July 25 ...	IX.	Malton	1·85	7	45	·24
Dec. 26 ...	V.	Crewkerne, Bincombe House..	2·40	10	0	·24
July 25 ...	IX.	South Milford Rectory	3·72+	12	0 ?	·31 ?
,, ,, ...	,,	Wakefield, Field Head	3·25	12	0	·27

HEAVY FALLS IN 24 HOURS DURING 1886.

NEVER during the 26 years that I have had the preparation of *British Rainfall* have I had so difficult a task as with the present, chiefly owing to the two great snowstorms which some observers seem to have regarded as unmeasurable, and which they neglected accordingly. Happily, in each district, the majority of the observers thought and acted otherwise, and thus, by the expenditure of much care and time, it has been possible to obtain values which I believe to be very nearly correct for each station. I can understand that many persons would have said, Why take all that trouble over snow returns which never can be made right? Why delay the Annual a month for the sake of two snowstorms? But my answer is always the same. As long as I am able to edit the volume, it shall not go out until I have made the returns as nearly accurate as I can. This last remark may suggest the false idea that I alter the returns as I think best without consulting the observers. That I should never do. In the cases (perhaps 70 or 80) in which I was satisfied that the snow had not been correctly measured, I wrote to the observers, telling them what change was proposed, and requesting them, if they did not approve of the alterations, to write and say so. Although my letter was so worded as to make a reply unnecessary except where the observers disapproved of the alteration, a great many wrote specially to thank me for the trouble I had taken, and saying that they were satisfied that the correction was desirable. Only three observers objected, and they all referred to the snow of December 26th. (1) Because he "usually enters the depth of snow on the land, and he had no such entry—he remembered the day as boisterous with some snow." As the snow fell all round his station to a considerable depth, I am sure that he omitted the entry, but as

I have no right to alter the return without his consent, I have printed it as sent, but added a ?; (2) This observer accepts my correction (addition of 0·50 in.), but says that he thinks it too much, and then, oddly enough, he adds—"The total depth of snow was 13 in." Precisely the amount I had estimated, and for which the 0·50 in., added to his original return, was correct. The protest has its sting entirely drawn by this statement of the depth of the snow. (3) Observer writes: "As the snowfall here on December 26th was most abnormal, I do not think any correction necessary." I do not understand this argument, but have left the original values, adding a ?

Before passing to the usual chronicle, we may remind our readers that in the following pages we deal only with the amounts of rain falling in the rainfall day, *i.e.*, in the 24 hours ending at 9 a.m. of the following civil day, and almost exclusively with the amounts which are, at each station, the largest in the year.

PART I.—CHRONICLE.

In this section we give a running commentary upon the principal maxima during the year, but as there are more than 1,700 of them, it is obvious that a selection has to be made. This, for some few years, has been effected by noticing as important only those daily rains which, at some one station, either (1) exceeded 2·00 in., or (2) amounted to more than 6 per cent. of the total fall in the year.

JANUARY 3RD.

IX.	Slaidburn, Dunsop Houses ...	2·25 in.	or 3·3 per cent.
X.	Seathwaite	4·00 ,,	3·0 ,,
,,	Grasmere, High Close	2·10 ,,	2·4 ,,
XI.	Pen-y-gwryd	2·75 ,,	2·5 ,,

JANUARY 25TH.

IX.	Settle, Ashfield Gardens.....	2·32 in.	or 4·2 per cent.

JANUARY 30TH.

XI.	Tegfynydd [Narberth].....	2·04 in.	or 3·5 per cent.
,,	Garthbibio, Rhos-y-perfedd..	2·58 ,,	4·5 ,,

MARCH 1ST.

III.	Wellingborough, Swanspool.	2·17 in.	or 6·8 per cent.
X.	Newcastle, Wellburn, Jesmond	2·67 ,,	7·8 ,,

It is curious that the great snowstorm in the Northern counties between Feb. 28th and March 2nd, has left only one record for these pages. As the storm and the damage were fully described in the *Meteorological Magazine* for March 1886, it is unnecessary here to re-

peat what was stated there—but it may be well to refer to the details given a few pages back [10], and I should like to mention that one of my correspondents sent me a series of etchings from photographs of lanes and streets near North Shields, in one of which the snow hides nearly all a street lamp-post, the lamp itself being alone visible over the mound. In another, a man is driving along a road which has been cut through, and the snow on one side is higher than his head.

MARCH 4TH.

XVIII.	Skye, Broadford	3·80 in.	or 3·4 per cent.

MARCH 26TH.

XI.	Mountain Ash Waterworks...	3·00 in.	or 4·0 per cent.
,,	Neath, Glyncorrwg	*3·65 ,,	3·8 ,,
,,	Treherbert	2·84 ,,	3·2 ,,
,,	Aberdare, Mardy	2·72 ,,	3·7 ,,
,,	Ystalyfera, Tan-yr-allt	2·52 ,,	3·1 ,,
,,	Llandovery	2·15 ,,	3·4 ,,
,,	NanthirReservoir [Aberdare]	2·21 ,,	3·3 ,,
,,	Port Madoc	2·12 ,,	3·3 ,,
,,	Llandwrog, Glynllivan Grdn.	2·05 ,,	3·6 ,,

* 1·92 in. more fell on the next day.

MARCH 30TH.

XI.	Llanidloes, Broomcliffe	2·23 in.	or 3·9 per cent.

APRIL 1ST.

X.	Lowther Castle [Penrith] ...	2·23 in.	or 4·7 per cent.

APRIL 7TH.

XV.	Ballachulish	3·05 in.	or 3·8 per cent.
,,	Strontian, Laudale	2·78 ,,	3·6 ,,
XVIII.	Loch Shiel, Glenaladale	2·24 ,,	2·4 ,,

MAY 4TH.

XX.	Kenmare, Derreen	2·04 in.	or 2·8 per cent.

MAY 9TH.

XI.	Newport, Gold Tops	2·24 in.	or 4·5 per cent.

MAY 11TH TO 13TH.

This rain is not only one of the remarkable features of a remarkable year, but it is one with very few precedents. It was the subject of an article occupying nine pages of the June number of the *Meteorological Magazine*, and there illustrated by a map, and at the June meeting of the Royal Meteorological Society an account was given by Mr. Marriott of the distribution of the rainfall and floods, and by Mr. Gaster of the cyclonic conditions which had prevailed during the rainfall. This paper and the discussion upon it, fully

illustrated, occupy 25 pages (269–283) of the *Quar. Jour. Roy. Met. Soc.*, Vol. XII. In the August number of the *Meteorological Magazine*, Mr. H. J. Marten, C.E., Engineer to the Severn Commissioners, gave most interesting details respecting the relative heights of the floods of November 1770, November 1852, and May 1886.

I shall, therefore, not re-discuss the subject fully, but merely give a table of the returns which for the three days *exceed five inches.* As far as I am at present aware there is no precedent for the fall at these stations, *e.g.*, Mr. T. H. Davis, of Orleton, an observer with 56 years' experience, says that during the whole of that time there had never been, since he began his record on January 1, 1831, so large a fall as on May 11—13, 1886, yet his total, 4·63 in., is too small to come into the following table! Its having occurred in so dry a month as May, adds to the remarkableness of the phenomenon.

From one station—Ashford, near Ludlow—I have no return, because, as fully explained by the Rev. J. Selwood Tanner in the *Meteorological Magazine*, his house was so flooded that he was unable to get out of it, and although his garden is 12 feet above the usual level of the river, it was covered by the flood and the rain gauge was upset.

RAINFALL, MAY 11TH–13TH, 1886.

Div.	County.	Station.	11	12.	13.	Total 11-13.
VI.	Hereford ...	Hereford, The Elms	·27	1·65	3·50	5·42
,,	,,	Staunton-on-Wye	·59	2·30	2·47	5·36
,,	Salop	Ludlow, Bromfield..	·58	2·39	2·08	5·05
,,	,,	Craven Arms, Stokesay Vic...	·54	2·20	2·57	5·31
,,	,,	Burwarton	·60	3·10	3·39	7·09
,,	,,	Bishop's Castle, Castle Street.	·57	1·75	3·30	5·62
,,	,,	,, More Rect....	·47	1·67	3·59	5·73
,,	,,	Much Wenlock, Larden Hall.	·35	2·75	3·30	6·40
,,	,,	Bridgenorth, Aldenham Park.	·48	2·43	2·47	5·38
,,	,,	Church Stretton, Preen Manor	·44	2·22	3·25	5·91
,,	,,	,, ,, Woolstaston	·58	2·42	3·32	6·32
,,	,,	Pontesbury Villa	·70	2·24	3·14	6·08
,,	,,	Shrewsbury, Onslow Hall.....	·58	1·98	2·91	5·47
,,	,,	Oswestry, Hengoed	1·58	1·92	1·60	5·10
VII.	Derby	Chesterfield, Linacre Res. ..	·28	2·48	2·45	5·21
IX.	York, W.R.	Sheffield, Redmires	·37	2·44	2·44	5·25
XI.	Monmouth..	Abergavenny, Larchfield	·88	2·77	1·44	5·09
,,	Radnor	New Radnor, Downton.....	·51	1·69	2·81	5·01
,,	Denbigh ...	Chirk, Brynkinalt	1·46	2·23	2·50	6·19
,,	,,	Ruabon, Wynnstay	1·11	2·14	2·05	5·30
XXI.	Dublin	Glenesmoel	1·95	2·20	1·55	5·70
,,	,,	Rathmines, W.W.....	1·35	2·78	1·21	5·34

On placing these figures on a map it will be found that they are grouped somewhat symmetrically round Brown Clee Hill in Shropshire. But there are two subsidiary areas—one on the confines of Derbyshire and Yorkshire, and another on the Dublin extremity of the Wicklow mountains.

Regarding the first of these groups, nearly all that is necessary has been said in the three papers above mentioned, except that Mr. Bustin, of Hereford, took several good photographs of the floods. As regards the damage at Rotherham, Mr. Marriott gave some interesting details in his paper, and we are glad to be able to supplement them by the accurate measurements made by Messrs. Guest and Chrimes, as set out in the following note.

Flood Record at the Works of Messrs. Guest and Chrimes, Rotherham.

These works are situated on the bank of the river Don and to the south of the Sheffield and Rotherham line of railway. They were erected in 1857, and the floor line was fixed at least 12 in. above any known flood level. A mark was cut 1·66 ft. above the floor level, or at 87·06 ft. above mean sea level, and a record has been kept of all important floods since that time; they have been as follows:—

Date.	Height.	Feet above M.S.L.	Rainfall of the 5 days preceding the last-named date of flood—as recorded at Moorgate Grove, by R. Chrimes, Esq.
1872, July 11th...	11·2 in. below floor,	84·46	7 ... 8 ... 9 ... 10 . 11 ·13 ... 0 ... ·59 ... 1·57 ...1·04
1875, Oct. 20–21..	7·6 in. above ,,	86·03	17 ... 18 ... 19 ... 20 ... 21 ·43 ... ·88 ... 1·29 ... ·14 ... ·13
1880, Oct. 6	24·6 in. below ,,	83·34	2 ... 3 ... 4 ... 5 ... 6 0 ... 0 ... 1·50 ... 1·11 ... ·11
,, ,, 28.....	2·9 in. above ,,	85·63	24 ... 25 ... 26 ... 27 ... 28 0 ... 0 ... ·82 .. 2·11 ... ·61
1886, May 13–14.	35·0 in. above ,,	88·31	10 ... 11 ... 12 ... 13 ... 14 ·25 ... ·15 ... 1·59 ... 2·00 ... ·13

Previous to the erection of the works the highest known flood was 84·40 ft. above M.S.L.; it will be seen that four out of the above five floods have exceeded this point, and that the flood in May, 1886, was nearly 4 ft. higher than any previous known.

In connection with the above, it is important to mention that whereas the mean rainfall at Moorgate Grove for the ten years ending 1874 was 25·35, it, for the subsequent ten years, ending 1884 was 30·10, an increase of 19 per cent.

With respect to the fall south of Dublin, we have no information besides that already published; we have an impression that something similar has before been recorded on those mountains, and a heavier fall there will even be found in this year, on October 15th.

MAY 16TH.

VIII.	Cartmel, Flookburgh	2·60 in.	or 4·8 per cent.

MAY 24TH.

I.	London, Guildhall (51 ft.) ...	1·30 in.	or 6·5 per cent.
,,	Hackney, Richmond Road..	1·36 ,,	6·3 ,,
,,	Holloway, Manor Road	1·65 ,,	6·1 ,,
,,	Upper Clapton, Warwick Rd.	1·53 ,,	6·1 ,,
,,	,, ,, The Common	1·46 ,,	6·2 ,,
,,	Enfield, Forty Hill	1·65 ,,	6·1 ,,
IV.	Barking, Little Ilford.....	1·30 ,,	6·2 ,,
,,	Waltham Abbey, Gunpowder Fac.	1·43 ,,	6·3 ,,

As may be inferred from its uniformity, this was a steady, not a thunderstorm rain.

MAY 27TH.

XIII.	N. Esk Reservoir [Penicuick]	2·00 in.	or 5·2 per cent.

JULY 20TH.

XX.	Kenmare, Derreen	2·04 in.	or 2·8 per cent.

JULY 21ST.

XXII.	Clifden, Kylemore	2·26 in.	or 2·8 per cent.

JULY 25TH.

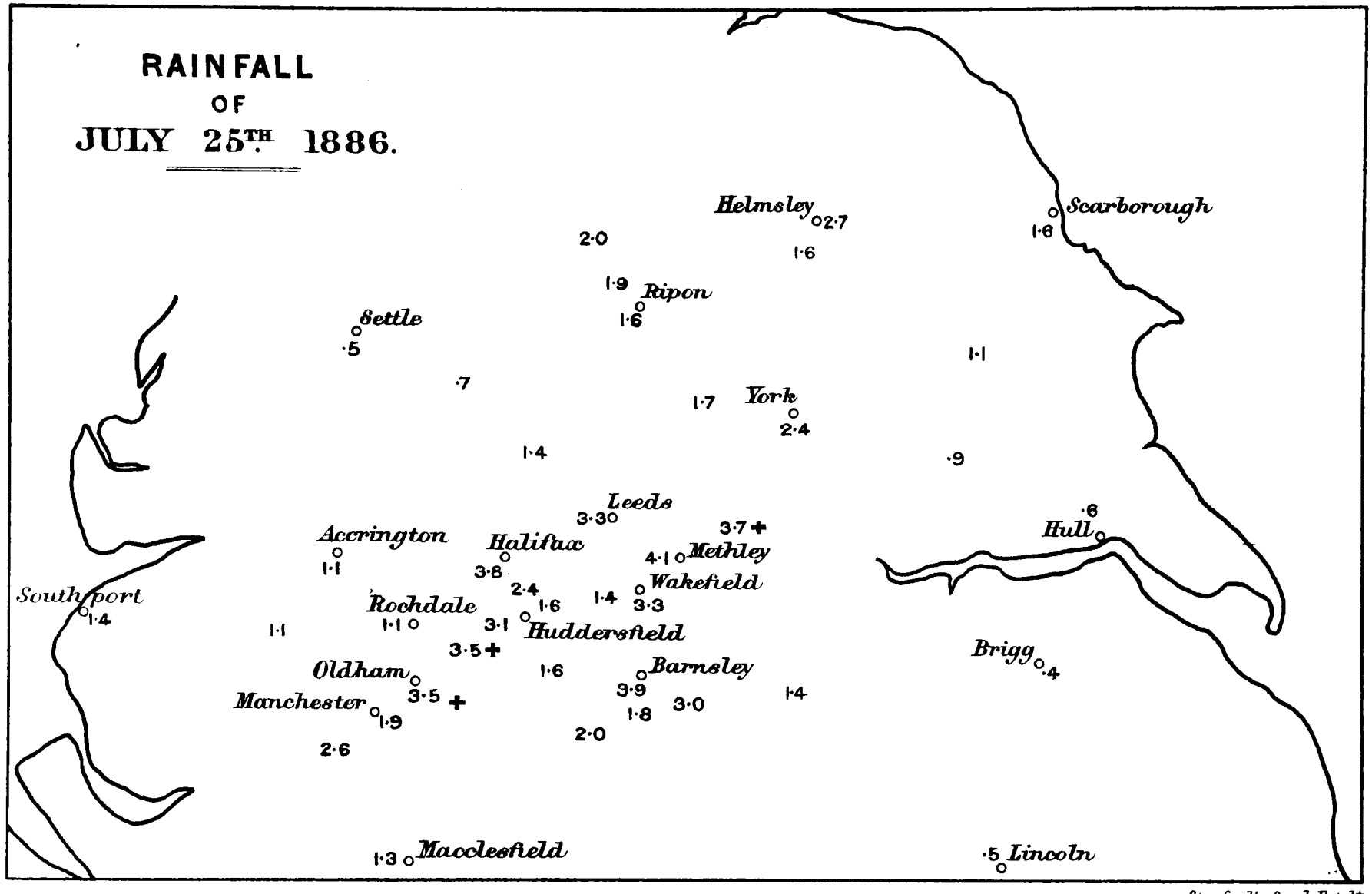
This was another exceptional rain, unusual on account of the total fall (*e.g.*, at "Wath-upon-Dearne, 2·95 in. the heaviest fall registered during 30 years," but still more so for the rate of fall. (See ante p. 117).

As regards the total fall it is impossible to tell what it was at five stations, for the rain gauges were filled and overflowed, therefore we know only that the fall exceeded the following values :—

VIII.	Oldham, Brushes Clough, Old..	3·40 +
,,	,, ,, ,, New	3·40 +
IX.	,, Strines Dale	3·46 +
,,	South Milford.....	3·72 +
,,	Leeds Museum	2·30 +

This fall was produced by a thunderstorm which prevailed over parts of twelve counties, viz., Bucks, Oxford, Northampton, Hunts, Bedford, Cambridge, Norfolk, Lincoln, Cheshire, Lancashire, Yorkshire and Durham.

It would occupy too much space to give all the falls which ex-


RAINFALL
OF
JULY 25TH 1886.
Helmsley
2·7
Scarborough
1·6
2·0
1·6
1·9
Ripon
1·6
Settle
·5
1·1
·7
1·7
York
2·4
1·4
·9
Leeds
3·30
·6
Hull
3·7
Accrington
1·1
Halifax
4·1
Methley
3·8
Wakefield
2·4
Southport
1·4
Rochdale
1·1
1·6
1·4
3·3
1·1
3·1
Huddersfield
3·5
Brigg
·4
Oldham
1·6
Barnsley
3·5
3·9
1·4
Manchester
1·9
1·8
3·0
2·0
2·6
1·3
Macclesfield
·5
Lincoln
Stanford's Geogl Estabt

ceeded the ordinary limits, and therefore we give only stations at which the total fall on one rainfall day exceeded *three inches*, or exceeded *eight per cent.*

III.	Stony Stratford, Thornton...	3·08 in.	or 9·6 per cent.
,,	Towcester, Whittlebury.....	3·18 ,,	9·0 ,,
,,	Castle Ashby	2·62 ,,	8·3 ,,
,,	Chatteris, Horseway Lock...	1·75 ,,	8·5 ,,
VII.	Skegness	2·28 ,,	9·0 ,,
IX.	Wath-upon-Dearne, ChaplSt.	2·95 ,,	9·2 ,,
,,	,, ,, ,, W. Melton	2·95 ,,	9·9 ,,
,,	Barnsley, Church Street.....	3·93 ,,	11·1 ,,
,,	Huddersfield, Golcar	3·12 ,,	6·7 ,,
,,	Wakefield Prison	3·20 ,,	9·2 ,,
,,	,, Alverthorpe Hall	2·59 ,,	8·1 ,,
,,	,, Stanley Vicarage.	2·50 ,,	8·9 ,,
,,	,, Field Head	3·25 ,,	10·9 ,,
,,	Halifax, Bermerside Obsy....	3·75 ,,	8·6 ,,
,,	Leeds, Methley Park	4·10 ,,	11·5 ,,
,,	,, Wortley Reservoir ...	3·12 ,,	8·8 ,,
,,	,, Holbeck (10 in. *g.*) ...	3·25 ,,	10·9 ,,
,,	,, ,, Water Works	3·40 ,,	10·7 ,,
,,	,, Woodhouse Moor.....	2·68 ,,	8·5 ,,
,,	,, Elmete Hall	2·90 ,,	8·8 ,,
,,	York, Cherry Hill	2·40 ,,	8·2 ,,

A selection from these figures with others to indicate the limits of the Yorkshire storm is given on the accompanying map.

THE RAINFALL AT THE OLDHAM WATERWORKS.

The following extract is taken from Mr. Watts' (waterworks manager) report to the Waterworks Committee, which met on Wednesday :—"On Sunday evening, July 25th, a violent thunderstorm passed over the drainage area of your works, and exceeded in severity any previous storm on record since their formation. The thunder was not loud, nor the lightning vivid, but the clouds seemed to touch the hills and poured rain down for an hour and ten minutes with a reeking vapour, the atmosphere being densely interspersed with spray for a few feet above the ground. For about two hours every rivulet and stream was charged to its fullest capacity, and the roads were converted into brooks. The heavy downpour lasted seventy minutes, during which time 1·88 in. of rain fell at Piethorne and 2·19 in. at Denshaw. This amount of rain in so short a time is almost unprecedented on the westerly slopes of the Pennine chain, and on meteorological grounds deserves to be recorded. The registered rainfall from 5 p.m. on the 25th to 8 a.m. on the 26th (15 hours), at the following stations confided to my charge was .—Piethorne, 2·06 in. ; Denshaw, 2·38 in. ; Brushes Clough, 3·38 in. ; Strinesdale, 3·46 in. The storm flow at the two latter stations was not taken, and it is regretable that the receiving vessels were found overflowing in the morning, when the readings were taken .—46,569 gallons per acre fell at Piethorne ; 53,824 gallons fell at Denshaw ; 76,439 gallons fell at Brushes ; and 78,248 gallons fell at Strinesdale. With an irregular drainage such as yours, it is difficult to judge the rate of flow off the land, but it is safe to estimate that within three hours

of falling fully one-half the rain on the present occasion passed into the reservoirs or to waste, and that the maximum discharge was reached 1½ hours after the rain commenced. The rate of flow increases with the volume of rain. No water was wasted at Piethorne or Denshaw. Where possible, the floods were divided, to minimise the effect on the flood gates and water courses. Norman Hill and Ready Con Dean controlled their own drainage without waste, and the same remarks apply to most of your other reservoirs, Piethorne excepted."

JULY 26TH.

IX.	Melmerby, Baldersby	2·47 ,,	8·5	,,
,,	Guisborough, Lockwood Beck	3·75 ,,	9·8	,,
,,	Saltburn, Skelton Res.	2·71 ,,	9·1	,,
X.	Seaham Vicarage	2·72 ,,	8·9	,,

AUGUST 17TH.

III.	Cambridge W.W., Cherryhinton	1·42 in.	or 6·3 per cent.	
,,	,, Beech House ...	1·42 ,,	6·1	,,
,,	,, Sidney Street ...	1·42 ,,	6·6	,,

SEPTEMBER 4TH.

VI.	Worcester, St. George's Square	2·03 in.	or 6 3 per cent.	
,,	,, Bevere Lock	2·09 ,,	6·6	,,
,,	,, Hawford Lodge ...	2·14 ,,	6·1	,,

SEPTEMBER 9TH.

VIII.	Chester, Pulford Hall	1·93 in.	or 6·2 per cent.	
,,	Hest Bank	2·04 ,,	4·5	,,
,,	Grange, Nutwood.....	2·07 ,,	3·9	,,
IX.	Sedbergh, Brig Flatts	2·23 ,,	3·5	,,
,,	,, Thorns Hall	2·05 ,,	3·4	,,
X.	Arnside	2·29 ,,	4·0	,,
,,	Kendal, Kent Terrace.....	2·05 ,,	3·5	,,
,,	,, Hawesmead	2·08 ,,	3·4	,,
,,	Bowness, Fallbarrow	2·04 ,,	2·8	,,
,,	Ambleside, Nook Cottage ...	2·18 ,,	2·6	,,

SEPTEMBER 27TH.

X.	Wythburn Vicarage..... ...	3·27 in.	or 2·9 per cent.

SEPTEMBER 29TH.

XIV.	Shaw's W. Works, New Yetts Dam	2·37 in.	or 4·1 per cent.	
,,	,, Glenbrae	2·20 ,,	3·8	,,
,,	,, Compensation Res.	2·00 ,,	3·4	,,
,,	,, Loch Thom ...	2·00 ,,	3·3	,,
,,	,, Hole Glen ...	2·30 ,,	4·0	,,
,,	,, Prospect Hill.	2·28 ,,	4·0	,,
XV.	Holy Loch, Rosmor	2·71 ,,	3·8	,,

OCTOBER 6TH.

XVI.	Culross, West Grange.....	2·80 in.	or 7·8 per cent.

OCTOBER 7TH.

IV.	Ipswich, Belstead Hall	1·80 in.	or 7·8 per cent.

OCTOBER 11TH.

XVI.	Balquhidder, Stronvar.....	2·78 in.	or 3·8 per cent.

OCTOBER 14TH.

XXIII.	Castlewellan, Lough Island..	2·70 in.	or 6·4 per cent.

OCTOBER 15TH.

V.	Chagford, Batworthy	2·53 in.	or 3·7 per cent.
XI.	Clarbeston, Penty Park	2·07 ,,	3·5 ,,
,,	Castle Malgwyn [Llechryd]..	2·75 ,,	5·0 ,,
,,	Aberystwith Cwmsymlog ...	3·83 ,,	5·9 ,,
,,	Cardiff, W.W., Cwm Taff Fawr, No. 6	3·59 ,,	4·5 ,,
,,	Trawsfynydd.....	3·08 ,,	4·3 ,,
,,	Llangybi, Cefn	2·25 ,,	3·9 ,,
,,	Dinorwic Quarry	2·14 ,,	3·1 ,,
,,	Bodewryd, Rhosybol	2·10 ,,	4·2 ,,
XXI.	Bray, Fassaroe	2·07 ,,	4·2 ,,
,,	Glenesmoel Lodge	3·88 ,,	6·0 ,,
,,	,, Rathmines W.W.	3·30 ,,	6·6 ,,
,,	,, Friarstown Ho..	2·59 ,,	5·3 ,,
,,	Glasnevin, Botanic Gardens	1·87 ,,	6·3 ,,
,,	Balbriggan, Laragh	2·08 ,,	5·9 ,,
,,	Trim	2·25 ,,	5·9 ,,
,,	Navan, Balrath	2·17 ,,	5·8 ,,
XXII.	Collooney, Markree Obsy. 5in. 1ft.	2·14 ,,	4·7 ,,
,,	Sligo, Mount Shannon.....	2·90 ,,	6·8 ,,

OCTOBER 19TH.

III.	Wisbech, Bank House.....	1·75 in.	or 6·2 per cent.

NOVEMBER 3RD.

X.	Ambleside, Lesketh Howe...	2·35 in.	or 2·6 per cent.

NOVEMBER 5TH.

V.	Chewton Mendip, The Priory	2·02 in.	or 4·4 per cent.
,,	E. Harptree, Harptree Court	2·15 ,,	4·2 ,,
IX.	Malham Tarn.....	2·00 ,,	3·1 ,,
X.	Hartlepool, Hurworth Burn	3·20 ,,	9·5 ,,
,,	Wolsingham	2·77 ,,	6·0 ,,
,,	Shotley Bridge	2·01 ,,	4·7 ,,
,,	Rothbury, Cragside	2·00 ,,	4·7 ,,
XII.	Hawick, Wolfelee	2·00 ,,	4·7 ,,

NOVEMBER 6TH.

X.	Rothbury, Brenckburn Priory	2·32 in.	or 6·4 per cent.
,,	Felton	2·05 ,,	6·1 ,,
,,	Alwinton, Biddleston Hall...	2·30 ,,	5·6 ,,

DECEMBER 7TH.

XI.	Rhayader, Nantgwillt	2·45 in.	or 3·3 per cent.

DECEMBER 14TH.

VII.	Caistor	2·00 in.	or 6·8 per cent.

DECEMBER 15TH.

IX.	Robin Hood's Bay, Fylingdales Vic.	2·00 in.	or 6·6 per cent.

DECEMBER 21ST.

XX.	Dunmanway, Coolkelure.....	2·02 in.	or 2·5 per cent.

DECEMBER 22ND.

X.	Patterdale Hall.....	3·03 in.	or 3·2 per cent.
XI.	Isle of Man, The Dhoon	2·03 ,,	3·3 ,,

DECEMBER 26TH.

We now come to the last of the exceptional phenomena. The snow-storm which disorganized the railway, telegraphic and telephonic systems at the end of the year.

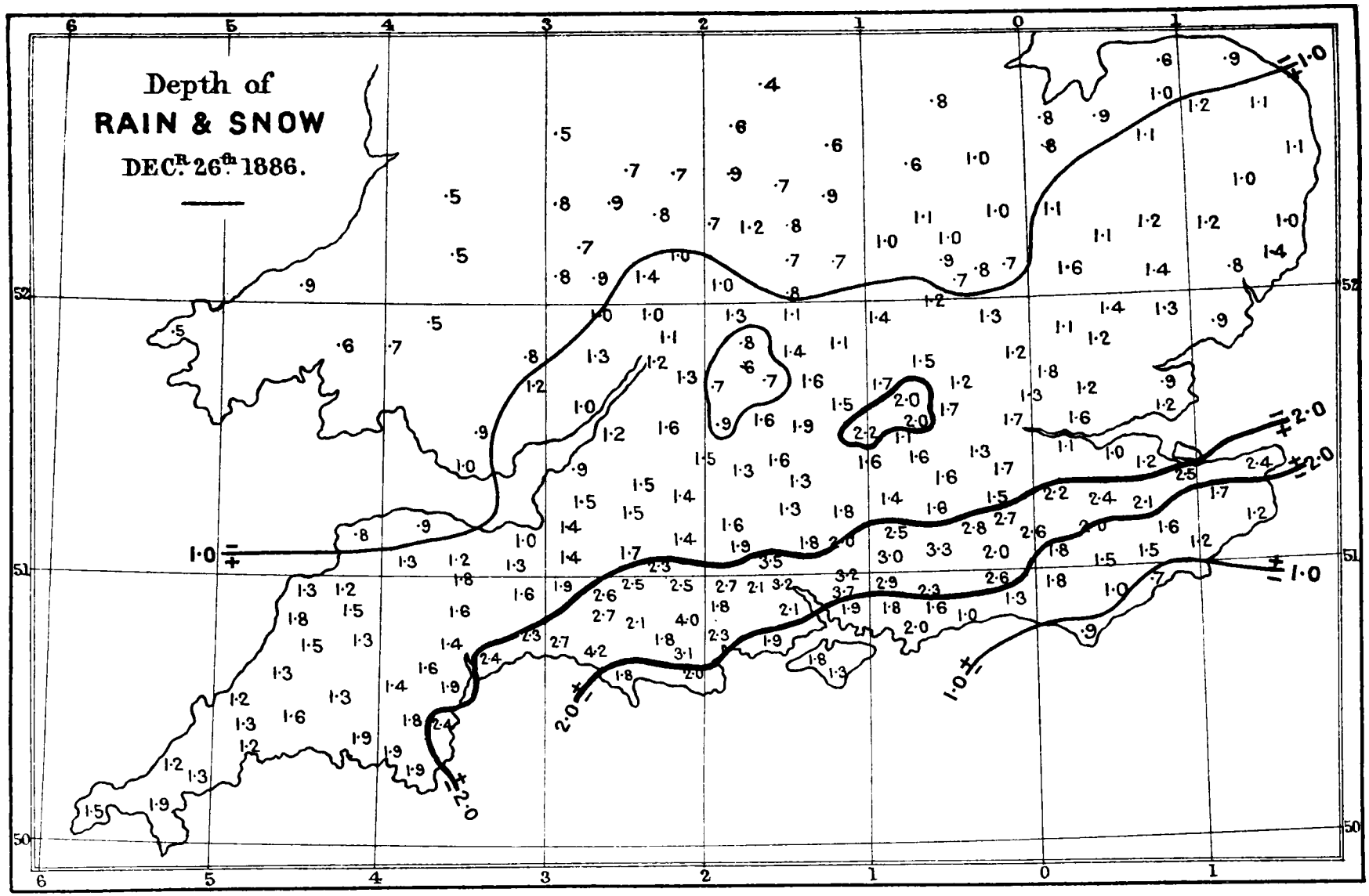
I have already explained the steps which I have taken to make *all* the returns as accurate as possible, but now that we have before us the annexed map it will be easier to make my proceedings better understood. *All the values on this map are the actual results of the observers original measures* (but, in one case, I have taken the mean of two readings), *and there are many others crowded out for want of space. All* the values were plotted on large scale maps, and then the few (perhaps one in a dozen) discordant ones were easily picked out, and then each one was investigated separately.

It will be noticed that the map is headed "Rain and Snow"—that is because at some places in the West it was almost entirely rain, and in the East almost entirely snow, and shaded gradually from one to the other. It was owing to this semi-fluidity of the snow that the damage to trees and telegraph wires was so excessive for the snow was sticky rather than dusty, and almost precisely twice its usual density.

The map shows that the heaviest fall was along a belt reaching from Torbay to Margate, and that some very exceptional amounts were recorded.

It is quite impossible to quote all the records above two inches or above 6 per cent. I have, therefore, taken the same values as for July 25th—viz., 3·00 inches or 8·0 per cent.

I.	Hampstead, Branch Hill Lodge	2·38 in.	or 8·2 per cent.
II.	Maidstone, Hunton Court ...	2·12 ,,	8·1 ,,
,,	,, ...	2·42 ,,	8·6 ,,
,,	Sheldwich	2·51 ,,	8·2 ,,
,,	Sittingbourne, Sharstead Ct.	2·53 ,,	8·6 ,,
,,	Margate, Birchington	2·32 ,,	9·2 ,,
,,	Herne Bay	2·35 ,,	10·0 ,,
,,	Margate, Renfrew Villa	2·44 ,,	9·7 ,,
,,	,, Apsley House	2·47 ,,	9·2 ,,
,,	Sheppey, Greenborough	2·42 ,,	9·7 ,,
,,	Compton [Petersfield]	3·20 ,,	8·1 ,,
,,	Petworth Rectory	3·25 ,,	8·5 ,,
,,	Horsham, Rusper.....	2·75 ,,	8·4 ,,
,,	Idsworth House	3·65 ,,	9·3 ,,
,,	Southampton, West End.....	2·96 ,,	8·2 ,,
,,	,, Highfield	3·16 ,,	8·8 ,,
,,	,, Red Lodge ...	3·16 ,,	9·1 ,,
,,	Winchester, Harestock	3·46 ,,	9·9 ,,
V.	Little Bredy	4·20 ,,	9·9 ,,


Depth of
RAIN & SNOW
DEC.R 26th 1886.
6
5
4
3
2
1
0
1
52
51
50
1·0
2·0

Part II.—Summary.

We have now to ascertain how far the M of 1886 were exceptional. Here, again, our record is impaired by the gauges which were allowed to overflow, and we can deal only with those which were carefully kept. First on the list in Table I. comes a new station, though with a name almost classic to English observers, for it was in that little Dorsetshire village (7 miles W.S.W. of Dorchester) that Mr. H. S. Eaton kept one of the fullest records, with exceptionally good instruments, from 1855 to 1865. As the date shows, this very great fall of 4·20 in. was the produce of the great December rain and snowstorm. Little Bredy lies at the S.W. foot of a range of lofty hills, and, as will be seen by the map, near the centre of the track characterised by the heaviest falls. The second entry, Methley Park, is the largest of those produced by the Lancashire and Yorkshire thunderstorm of July 25th.

Table II. shows that both these falls have been exceeded on previous occasions, but if the column of absolute maxima be carefully examined, it will be found that 9 out of the 17 instances which exceed it are from Seathwaite, where, of course, a fall of 4 or 5 inches is not unusual, and nearly all the others are from wet districts. Tables III. and IV. afford a better test, and here we see some very remarkable facts—seven instances of one-tenth or more of the whole yearly fall being measured in one day is unusual. Moreover, the fall of 4·10 in. out of a total of 35·78 in. is very unusual; the only analagous cases seem to be—

1865	Fleckney, Leicester	4·40	in.	out of about	33·80 in.
1867	Hartlip, Kent.....	4·78	,,	,, ,,	27·00 ,,
1870	Tongue, Sutherland	6·00	,,	,, ,,	35·10 ,,
1883	Skegness, Lincoln.....	4·31	,,	,, ,,	35·04 ,,

Table V. is, however, the ultimate test as to the general character of the maxima over the whole of the British Isles, independent of local phenomena, which, however exceptional, are of individual rather than cosmical interest. From it we find that the average per centage over the whole country was rather above the mean, but has been exceeded in six years out of 21, and that the average amount of the maxima was 10 per cent. above the mean, and has been exceeded in only three years out of 21, viz., in 1865, 1875, and 1880. It is, therefore, evident that the maxima over the whole country were greater than usual, but not unprecedentedly great.

TABLE I.—*Maximum Falls in* 1886.

Date.	Div.	Station.	Depth.	Per Cent.	Fall in year.
Dec. 26 ...	V.	Little Bredy	4·20in.	9·9	42·55 in.
July 25 ...	IX.	Leeds, Methley Park	4·10 ,,	11·5	35·78 ,,
Jan. 3 ...	X.	Seathwaite.....	4·00 ,,	3·0	133·84 ,,
July 25 ...	IX.	Barnsley, Church Street.....	3·93 ,,	11·1	35·49 ,,
Oct. 15 ...	XXI.	Glenesmoel Lodge	3·88 ,,	6·0	64·51 ,,
,, ,, ...	XI.	Aberystwith, Cwmsymlog ...	3·83 ,,	6·0	64·60 ,,
Mar. 4 ...	XVIII.	Skye, Broadford	3·80 ,,	3·4	110·33 ,,
July 26 ...	IX.	Guisboro', Lockwood Beck Res.	3·75 ,,	9·8	38·23 ,,
,, 25 ..	,,	Halifax, Bermerside Observ.	3·75 ,,	8·6	43·50 ,,
Dec. 26 ...	II.	Idsworth House	3·65 ,,	9·3	39·05 ,,
Mar. 27 ...	XI.	Neath, Glyncorrwg	3·65 ,,	3·8	95·33 ,,
May 13 ...	VI.	Bishop's Castle, More Rect.	3·59 ,,	9·3	38·63 ,,
Oct. 15 ...	XI.	Cardiff W.W.,Cwm Taff Fawr,No.6	3·59 ,,	4·5	80·17 ,,
May 13 ...	VI.	Shrewsbury, Wallop	3·54 ,,	9·1	39·02 ,,
,, ,, ...	,,	Hereford, The Elms.....	3·50 ,,	10·5	33·40 ,,
,, 12 ...	XI.	Llanfairfechan	3·50 ,,	7·9	44·20 ,,

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	4·4	86·2	6·38	3·6	Seathwaite.....	,,
1867 ...	3·17	9·0	42·5	4·78	17·7	Hartlip	II.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusinas.....	XV.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	X.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue	XIX.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	V.
1872 ...	4·10	6·6	73·1	5·82	3·2	Seathwaite.....	X.
1873 ...	2·97	6·2	60·7	4·20	2·9	Seathwaite	,,
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant	XI.
1875 ...	4·52	7·8	63·9	5·33	9·7	NewportW.W.	,,
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany	XXIII.
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree..	XVIII.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield ...	XI.
1879 ...	3·66	9·5	50·4	4·05	4·1	Little Langdale	X.
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	,,
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan	XVIII.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite ...	X.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glenesmoel ...	XXI.
1884 ...	3·45	4·7	80·7	6·78	5·0	Seathwaite ...	X.
1885 ...	3·45	5·8	68·2	4·62	3·2	Seathwaite ...	,,
Mean ...	3·55	6·2	67·7	5·23	6·4	.....	...
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy...	V.
Diff. ...	+ ·22	+1·5	— 9·0	—1·03	+3·5	.....	,,

TABLE III.—*Maximum Per Centages in* 1886.

Date.	Div.	Station.	Per Cent.	Depth.	Fall in year.
July 25 ...	IX.	Leeds, Methley Park	11·5	4·10 in.	35·78 in.
,, ,, ...	,,	Barnsley, Church Street.....	11·1	3·93 ,,	35·49 ,,
,, ,, ...	,,	Wakefield, Field Head	10·9	3·25 ,,	29·76 ,,
,, ,, ...	,,	Leeds, Holbeck (10in. g.) ..	10·9	3·25 ,,	29·75 ,,
,, ,, ...	,,	,, ,, Waterworks.	10·7	3·40 ,,	31·64 ,,
May 13 ...	VI.	Hereford, The Elms.....	10·5	3·50 ,,	33·40 ,,
Dec. 26 ...	II.	Herne Bay.....	10·0	2·35 ,,	23·55 ,,
,, ,, ..	V.	Little Bredy	9·9	4·20 ,,	42·55 ,,
July 25 ...	IX.	Wath-upon-Dearne,'West Melton	9·9	2·95 ,,	29·68 ,,
,, 26 ...	,,	Guisboro', Lockwood Beck Res.	9·8	3·75 ,,	38·23 ,,
Dec. 26 ...	II.	Margate, Renfrew Villa	9·7	2·44 ,,	25·30 ,,
,, ,, ...	,,	Sheppey, Greenborough	9·7	2·42 ,,	24·94 ,,
July 25 ...	III.	Stoney Stratford, Thornton..	9·6	3·08 ,,	32·27 ,,
Nov. 5 ...	X.	Hartlepool, Hurworth Burn.	9·5	3·20 ,,	33·60 ,,
Dec. 26 ...	II.	Idsworth House	9·3	3·65 ,,	39·05 ,,
May 13 ..	VI.	Bishop's Castle, More Rect.	9·3	3·59 ,,	38·63 ,,

TABLE IV.—*Comparison of Maximum Per Centages with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ...	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	2·48	Burton	VI.
1867 ...	11·0	2·85	25·3	17·7	4·78	Hartlip	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk	XVII.
1870 ...	10·0	2·34	22·9	17·1	6·00	Tongue	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter	IX.
1872 ...	8·1	3·43	42·5	10·0	3·70	Hillington Hall	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott.....	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn.. [Hall	III.
1875 ...	10·2	3·76	37·5	13·2	3·95	Letheringsett ...	IV.
1876 ...	7·4	2·49	33·7	8·5	3·70	Cragside	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	CambridgeM. V.	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Pr. L.	,,
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle..	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh ...	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness.....	VII.
1884 ...	11·7	2·33	20·0	13·8	2·66	Diss(Thelveton)	IV.
1885 ...	8·9	2·71	30·7	9·6	2·62	Beccles, Ellough	,,
Mean...	9·2	2·70	29·7	11·7	3·57	.....	...
1886 ...	10·1	3·32	32·7	11·5	4·10	Methley Park..	IX.
Diff. ...	+ ·9	+ ·62	+ 3·0	— ·2	+ ·53	.....	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls of* 1886 *with similar data for previous years.*

Years.	Number of Returns.	Mean Percentage.	Mean Amount.	Mean Total Fall in year.	Ratio taking 34=100.	Total Fall being assumed =34in. Mean Max. =
			in.	in.		
1865.....	481	5·1	1·70	33	97	5·0 per cent
1866.....	590	3·7	1·48	40	118	4·4 ,,
1867.....	584	4·6	1·44	31	91	4·2 ,,
1868.....	676	4·3	1·43	33	97	4·2 ,,
1869.....	637	4·2	1·42	34	100	4·2 ,,
1870.....	687	4·9	1·30	27	79	3·8 ,,
1871.....	752	4·9	1·49	30	88	4·4 ,,
1872.....	743	3·4	1·59	47	138	4·7 ,,
1873.....	809	4·6	1·35	29	85	4·0 ,,
1874.....	1010	4·4	1·41	32	94	4·1 ,,
1875.....	1081	5·0	1·83	37	109	5·4 ,,
1876.....	1112	3·9	1·49	38	112	4·4 ,,
1877.....	1180	3·8	1·56	41	121	4·6 ,,
1878.....	1186	4·3	1·49	35	103	4·4 ,,
1879.....	978	4·2	1·52	36	106	4·5 ,,
1880.....	1117	4·8	1·72	36	106	5·1 ,,
1881.....	1194	4·1	1·45	35	103	4·3 ,,
1882.....	1463	3·6	1·42	39	115	4·2 ,,
1883.....	1505	4·0	1·41	35	103	4·1 ,,
1884.....	1691	4·8	1·32	28	82	3·9 ,,
1885.....	1801	4·5	1·41	31	91	4·2 ,,
Mean ...	1013	4·3	1·49	35	102	4·4 ,,
1886.....	1718	4·6	1·64	35	103	4·8 ,,
Diff.....	+715	+ ·3	+ ·15	0	+ 1	+ ·4 ,,

DROUGHTS IN 1886.

THERE seems no reason why a table of droughts should not form as regularly a portion of this volume as a table of heavy rainfalls.

The subject of droughts was treated rather fully in *British Rainfall*, 1884, page [165], and distinct definitions were laid down, viz.—

Absolute drought.—A period of not less than 14 days with no measurable rainfall.

Partial drought.—A period of not less than 28 days in which the total rainfall (irrespective of its distribution) is not more than ·25 in.

Fifty records for 1886 have been selected, so distributed as fairly to represent the British Isles, and the following table contains the result:—

Station and County.	Absolute Droughts.			Partial Droughts.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
London (Camden Square, N.W.)	Mar. 4	Mar. 17	14	June 11	July 10	30	·23
Middlesex.	June 23	July 8	16				
	Sept. 11	Sept. 24	14				
Dorking (Abinger Hall)	June 23	July 8	16	June 11	July 8	28	·20
Surrey.							
Hythe	June 23	July 9	17	None			
Kent.							
Welwyn (Datchworth Rect.)	June 23	July 10	18	June 3	July 10	38	·18
Herts.	Sept. 11	Sept. 24	14				
Maxey Vic, [Market Deeping]	June 23	July 6	14	Jan. 30	Feb. 28	30	·25
Northampton.							
Geldeston [Beccles]	June 23	July 6	14	None			
Norfolk.	Aug. 19	Sept. 1	14				
Calne (High Street)	Mar. 4	Mar. 17	14	June 13	July 10	28	·20
Wilts.	June 23	July 10	18				
	Aug. 17	Aug. 31	15				
	Sept. 11	Sept. 24	14				
Torquay (Lamorna)	June 15	July 10	26	June 10	July 10	31	·23
Devon.	Aug. 16	Aug. 31	16				
Bideford (Northam)	June 18	July 10	23	None			
Devon							

Station and County.	Absolute Droughts.			Partial Droughts.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
St. Austell (Trevarna)	June 22	July 6	15	None			
CORNWALL.							
Ilminster (White Lackington) ...	June 15	July 6	22	June 11	July 11	31	·18
SOMERSET.	Aug. 17	Sept. 1	16				
Ross (The Graig)	June 23	July 9	17	None			
HEREFORD.							
Patshull Gardens	Mar. 2	Mar. 16	15	June 14	July 11	28	·24
STAFFORD.	June 23	July 10	18				
	Sept. 11	Sept. 24	14				
Market Overton	June 23	July 6	14	None			
RUTLAND.							
Worksop (Hodsock Priory)	June 23	July 8	16	None			
NOTTS.							
Chesterfield (Gas Works)	June 15	July 10	26	June 11	July 11	31	·19
DERBY.							
St. Michael's-on-Wyre	None			None			
LANCASHIRE.							
Thornton-in-Craven	None			None			
YORKS, W.R.							
Cottingham	June 24	July 8	15	June 15	July 12	28	·21
YORKS, E.R.							
Darlington (South End)	None			None			
DURHAM.							
Felton	June 23	July 9	17	June 2	July 12	41	·23
NORTHUMBERLAND.							
Pawston [Coldstream]	None			June 2	July 7	36	·23
NORTHUMBERLAND.							
Blencowe School	None			None			
CUMBERLAND.							
Chepstow (The Mount)	Feb. 14	Feb. 27	14	June 12	July 10	29	·11
MONMOUTH.	June 15	July 10	26				
Haverfordwest (High Street)	Mar. 3	Mar. 16	14	None			
PEMBROKE.	June 23	July 6	14				
Llanidloes (Broomcliffe)	Mar. 3	Mar. 16	14	None			
MONTGOMERY.	June 23	July 6	14				
Rhyl (Sedgley House)	June 23	July 10	18	June 14	July 12	29	·20
FLINT.							
Ruabon (Wynnstay)	June 17	July 7	21	None			
DENBIGH.							
Garliestown (Galloway Ho.)	Mar. 5	Mar. 18	14	None			
WIGTON.	June 26	July 10	15				
Cargen [Dumfries]	Ap. 11	Ap. 26	16	Ap. 10	May 7	28	·21
KIRKCUDBRIGHT.				June 12	July 9	28	·19
Melrose (Asylum)	None			June 14	July 12	29	·24
ROXBURGH.							
Gilmerton Station	June 15	July 7	23	None			
EDINBURGH.							
Old Cumnock	None			None			
AYR.							

Station and County.	Absolute Droughts.			Partial Droughts.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
Killearn (Old Ballikinrain)..... Stirling.	None			None			
Strontian (Laudale) ..... Argyll.	None			None			
Islay (Ardbeg) .... Argyll.	None			None			
Kirriemuir (Lintrathen) .. .. Forfar.	June 16	July 6	21	None			
Midmar (Dun Echt Observatory) Aberdeen.	None			None			
Alness (Ardross Castle) ..... Ross.	None			None			
Golspie, H.R.S. ..... Sutherland.	None			None			
Cork (Blackrock) ..... Cork.	June 12	June 25	14	June 10	July 10	31	·22
Killarney (Woodlawn) ..... Kerry.	None			None			
Portlaw (Mayfield) .... Waterford.	Mar. 1	Mar. 16	16	June 10	July 10	31	·18
Limerick (Kilcornan) ..... Limerick.	None			None			
Bray (Fassaroe) ..... Wicklow.	None			None			
Athlone (Twyford) ..... Westmeath.	None			None			
Ballinasloe (Garbally)..... Galway.	None			None			
Sligo (Mount Shannon) .. .. Sligo.	Mar. 1	Mar. 17	17	None			
Belfast (Antrim Road) .... Antrim.	Mar. 2 June 26	Mar. 16 July 9	15 15	None			
Stewartstown (Ardtrea) ..... Tyrone.	Mar. 3	Mar. 16	14	None			

As the subject has hardly ever been investigated, it is impossible to compare these values with any average. It is certain that they fall far short of those in 1868, but I have not the means of readily comparing them. The table and summary in *British Rainfall*, 1884, were based upon returns from only 39 stations.

I do not put forward the following as perfect, but in it I have raised the figures for 1880 and 1884, so as to render them as comparable as may be with the values for the fifty stations now given :—

Years.	Absolute Droughts.			Partial Droughts.			
	No.	Average Duration.	Greatest Duration.	Stations without one.	No.	Average Duration.	Greatest Duration.	Stations without one.
1880	75	18 days	26 days	6	56	32 days	41 days	13
1884	46	17 ,,	22 ,,	13	15	30 ,,	33 ,,	36
1886	48	17 ,,	26 ,,	18	19	31 ,,	41 ,,	31

Regarding 1880, we remarked upon the fact that though it was a wet year, it was characterized by a long drought; and now we have a similar occurrence in 1886, a year characterized by exceptionally heavy falls of rain and with a total considerably above the average, and yet a series of droughts equal to, or exceeding, those of the dry year 1884.

MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1886.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	Middlesex	London (Camden Sq.)	4·02	·63	1·38	1·22	4·79	·63	2·37	·76	1·73	2·43	2·71	4·34	27·01
,,	,,	Uxbridge (Harefield)	3·40	·78	1·86	1·90	3·74	1·05	2·00	·71	2·19	2·66	3·28	4·68	28·25
II.	Surrey	Guildford (Guildown)	3·50	·65	1·36	1·89	4·38	·59	2·75	1·47	1·87	3·94	3·02	4·09	29·51
,,	Kent	Tenterden	4·97	·63	1·48	1·60	3·34	·54	2·60	1·40	·88	3·56	3·89	5·20	30·09
,,	,,	Hythe	5·29	·80	1·10	1·33	3·27	1·32	2·56	1·01	2·10	3·37	3·90	4·86	30·91
,,	,,	Sevenoaks (River Hill)	3·48	·43	1·45	1·59	3·67	·72	2·07	2·30	2·71	2·77	3·27	4·30	28·76
,,	,,	Ospringe (Lorenden)	4·59	·69	1·07	2·04	2·17	·30	1·97	1·73	1·62	2·83	2·99	5·71	27·71
,,	Sussex	Worthing	5·33	·53	2·45	1·60	4·17	·62	2·73	1·42	1·15	3·56	3·57	4·76	31·89
,,	,,	Maresfield (Forest Lodge)	4·73	·63	2·44	2·36	4·21	1·01	2·88	2·38	·91	5·65	3·87	5·58	36·65
,,	Hants	I. of Wight (Sandown)	5·21	·92	2·86	2·09	3·45	·59	3·13	1·48	2·88	5·12	4·55	5·89	38·17
,,	,,	Bps. Waltham (Swanmore)	4·13	·65	2·33	2·10	3·96	·66	3·14	1·02	1·91	5·22	3·64	5·32	34·08
,,	,,	Basingstoke (Sherborne)	4·11	·62	1·72	1·79	4·33	1·07	2·31	1·13	1·98	3·96	3·62	4·95	31·59
,,	Berks	Newbury (Welford)	4·39	·85	1·65	2·12	4·46	1·41	3·13	1·15	2·08	3·89	3·22	5·46	33·81
III.	Herts	Hertford (Bayfordbury)	3·27	·37	1·71	1·30	4·26	·37	2·05	·94	1·57	3·40	2·79	4·23	26·26
,,	,,	Royston	2·46	·30	1·50	1·21	4·55	·67	2·58	1·40	1·12	2·65	2·79	3·89	25·12
,,	Bucks	High Wycombe	3·44	·63	1·43	1·50	3·50	·91	1·82	·66	1·56	4·12	3·19	4·30	27·06
,,	,,	Buckingham (Adstock)	3·38	·57	2·16	2·39	4·11	·94	4·11	1·76	1·59	4·45	2·41	4·47	32·34
,,	Oxford	Oxford (Magdalen Coll.)	4·08	·68	1·61	2·13	4·57	1·14	3·39	1·65	2·27	3·16	2·50	5·01	32·19
,,	Northampton	Wellingborough (Swanspool)	3·24	·29	3·61	2·07	4·31	1·04	4·55	1·71	1·32	2·90	2·18	4·78	32·00
,,	Bedford	Bedford	2·07	·30	1·47	2·00	3·80	·90	3·72	1·23	1·11	2·90	2·40	4·20	26·10
,,	Cambridge	Ely (Stretham)	1·85	·22	1·21	·91	3·05	·91	3·73	2·47	1·00	3·08	2·11	3·13	23·67
,,	,,	Wisbech	2·81	·12	1·94	1·45	2·49	·70	5·24	1·74	·97	4·57	2·76	3·51	28·30
IV.	Essex	Waltham Abbey	2·25	·29	1·32	·95	4·24	·37	2·23	·70	1·15	2·36	3·25	3·53	22·64
,,	,,	Chelmsford	2·99	·15	1·13	·90	2·23	·25	2·40	1·38	·90	1·94	2·46	3·62	20·35
,,	,,	Braintree (Bocking Place)	3·25	·27	1·78	1·41	2·41	·51	3·00	1·38	1·03	2·32	3·08	3·55	23·99
,,	Suffolk	Haverhill (Great Thurlow)	2·58	·25	1·73	1·23	2·82	·95	1·81	2·57	·98	1·91	2·90	3·05	22·78
,,	,,	Ipswich	2·58	·24	1·40	1·28	2·38	·51	2·85	1·21	·99	3·29	2·81	4·11	23·65
,,	,,	Stradbroke	2·20	·06	1·78	1·31	1·82	·62	3·19	1·71	2·01	1·24	3·07	3·41	22·42
,,	Norfolk	Geldeston [Beccles]	2·10	·35	1·24	1·43	1·81	·51	3·36	1·50	2·17	2·47	2·92	3·36	23·22
,,	,,	Swaffham	2·69	·39	1·73	1·76	2·67	1·40	5·16	2·84	1·57	4·16	2·55	4·02	30·94
,,	,,	Holt	3·08	·38	1·41	1·56	2·81	1·70	3·75	2·04	1·60	2·66	2·89	4·63	28·51

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August	Sept.	Oct.	Nov.	Dec.	Total.
V.	Wilts	Salisbury	3·33	·82	2·09	1·79	3·29	·87	2·10	1·01	2·17	5·07	3·32	6·15	32·01
,,	,,	Trowbridge(SteepleAshton)	2·97	·58	1·63	3·24	4·61	·88	2·79	1·15	2·35	3·61	3·10	5·22	32·13
,,	,,	Pewsey	3·91	·88	2·16	2·61	3·76	·45	2·80	1·30	2·23	4·17	4·18	5·57	34·02
,,	Dorset	Weymouth (Osmington)...	3·91	1·01	3·55	1·76	3·13	1·18	3·40	1·05	3·07	4·09	3·80	6·69	36·64
,,	,,	Wimborne (Chalbury).....	3·27	·78	2·81	2·00	4·41	·40	2·48	·83	2·60	4·49	3·40	6·91	34·38
,,	,,	Shaftesbury	3·77	·70	3·19	2·64	4·57	1·02	3·04	1·30	2·83	5·14	3·79	5·64	37·63
,,	Devon	Dartmouth (Strete)	6·88	·38	3·80	2·51	3·21	·59	3·44	1·59	2·20	5·14	3·32	7·99	41·05
,,	,,	Walkhampton (Lowery) ..	8·05	2·40	8·20	4·70	3·95	1·20	5·35	4·00	3·65	10·50	6·45	7·70	66·15
,,	,,	Ilsington (Middlecott Ho.)	6·61	2·18	4·89	1·96	4·28	·30	3·59	2·15	3·21	9·67	4·27	7·84	50·95
,,	,,	Cullompton (Bradninch)...	6·19	1·50	2·62	2·23	4·07	·61	3·02	2·09	2·64	6·39	3·27	5·86	40·49
,,	,,	South Molton (Rose Ash)..	6·16	·91	3·04	2·25	3·44	1·34	2·40	3·26	1·60	6·92	4·09	6·61	42·02
,,	Cornwall	Penzance	6·14	2·60	3·79	3·51	2·09	·97	3·86	1·67	3·06	5·97	4·01	7·06	44·73
,,	,,	St. Agnes	4·96	1·97	3·31	2·38	2·06	·85	3·27	1·94	3·18	6·46	4·29	6·96	41·63
,,	,,	Bude	5·68	1·29	3·31	1·56	1·87	·76	2·33	·74	1·88	6·52	3·63	6·19	35·76
,,	Somerset	Ilminster	4·23	1·14	2·95	2·72	3·36	·74	2·88	1·39	2·19	5·70	3·39	6·17	36·86
,,	,,	Glastonbury (Street)	4·67	·84	2·28	3·10	3·86	·90	3·08	1·88	2·79	5·01	4·13	5·64	38·18
,,	,,	Exford Rectory	8·22	1·04	4·10	4·35	4·28	1·20	2·96	3·17	3·95	10·67	6·20	8·55	58·69
VI.	Gloucester	Clifton	4·92	·82	2·81	2·35	4·67	1·02	3·69	2·54	2·68	4·94	4·08	5·18	39·70
,,	,,	Stroud (Upfield)	4·97	·70	2·45	2·22	4·90	·64	3·29	1·87	2·89	4·44	2·89	3·90	35·16
,,	,,	Fairford (Hatherop Rec)...	3·99	·89	2·26	1·82	4·53	1·61	2·93	1·63	2·71	4·20	2·53	3·99	33·09
,,	Hereford	Ross (The Graig)	5·10	1·22	3·19	2·72	5·49	1·71	3·27	1·46	2·66	5·18	2·51	4·43	38·94
,,	Salop	Ch. Stretton (Woolstaston)	4·24	·69	2·83	1·57	9·49	1·84	2·71	1·54	2·79	4·79	2·42	4·51	39·42
,,	,,	MuchWenlock(WilleyPk.)	3·73	·73	2·83	1·19	7·16	·94	2·70	1·65	2·93	4·58	1·61	4·04	34·09
,,	,,	Oswestry (Hengoed).....	4·60	1·32	3·80	2·28	7·83	2·24	3·34	1·09	4·02	5·47	2·62	5·07	43·68
,,	Stafford	Lichfield Museum	3·46	·97	3·26	2·13	5·95	1·05	2·52	1·46	2·39	3·52	1·86	4·57	33·14
,,	,,	Burton (Shobnall)	2·63	·45	2·93	2·07	5·38	1·56	3·37	1·64	1·73	3·56	1·83	3·21	30·36
,,	,,	Etruria	4·23	·68	3·08	1·63	4·56	2·06	2·78	2·83	2·00	4·46	2·37	5·27	35·95
,,	Worcester	Blockley	4·12	·86	2·24	1·81	5·04	1·35	3·58	1·52	2·58	4·54	1·80	4·50	33·94
,,	,,	Malvern	3·49	1·28	2·63	2·42	6·56	1·47	2·66	·90	2·70	4·39	2·35	4·15	35·00
,,	,,	Tenbury (Orleton)	4·17	1·25	3·19	2·24	7·11	1·03	2·71	1·46	2·88	3·47	2·29	3·57	35·37
,,	,,	Stourbridge (Longlands)...	3·22	1·13	2·79	2·25	6·48	1·28	2·68	1·14	2·87	3·57	1·86	4·10	33·37
,,	Warwick	Leamington(UpperParade)	3·03	·69	2·03	1·32	5·25	1·19	2·43	1·10	2·71	4·08	2·07	3·17	29·07
,,	,,	Willey Rectory	2·86	·47	2·38	1·90	5·13	·90	2·93	1·46	2·03	4·95	2·38	3·54	30·93
VII.	Leicester	Loughborough	2·96	·41	2·83	2·10	5·70	1·30	3·11	2·58	1·29	4·76	1·13	3·49	31·66
,,	,,	Harston [Grantham]	2·94	·22	2·22	1·95	5·02	1·37	2·54	1·95	1·67	3·87	2·11	3·09	28·95

ENGLAND—(*continued.*)

Div	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland	Market Overton	3·03	·36	2·08	1·75	4·33	1·72	2·79	2·11	·90	3·99	3·18	3·78	30·02
,,	Lincoln	Horncastle	2·60	·30	2·36	1·32	4·49	·46	2·65	2·64	·92	5·14	2·91	3·04	28·83
,,	,,	Brigg (Appleby Vic.)	3·01	·60	2·12	1·77	4·25	·58	2·78	2·02	1·02	3·82	1·34	3·84	27·15
,,	Notts	Ollerton(ThoresbyGardens)	3·90	·61	2·58	2·21	5·05	·63	3·21	1·55	·81	4·03	1·81	3·62	30·01
,,	Derby	Buxton	6·97	1·07	4·13	2·16	5·48	1·62	4·17	3·03	2·78	5·91	3·85	6·26	47·43
VIII.	Cheshire	Congleton(BuglawtonVic.)	4·69	·71	2·52	1·43	5·06	1·61	3·16	2·16	2·13	4·55	2·24	4·21	34·47
,,	Lancashire	Manchester (Withington)	4·54	·70	1·93	1·60	5·84	1·41	3·62	1·44	3·40	5·52	2·18	3·96	36·14
,,	,,	Ormskirk (Rufford)	3·76	·80	2·65	1·76	4·14	1·52	4·60	1·92	3·96	5·04	2·61	4·45	37·21
,,	,,	Burnley (Swinden, Lower)	7·34	·81	3·67	3·56	5·23	2·57	4·03	1·97	3·67	6·18	3·98	7·23	50·24
,,	,,	Garstang (Vale House)	4·69	1·74	3·15	2·48	5·65	2·38	6·14	2·62	5·23	5·90	4·19	4·62	48·79
,,	,,	Grange (Nutwood)	4·51	1·68	4·14	2·76	4·46	2·01	6·88	3·68	6·39	7·16	4·93	4·81	53·41
IX.	York, W.R.	Rotherham	4·76	·63	2·76	1·27	6·11	·92	3·66	1·68	·89	4·34	1·21	3·86	32·09
,,	,,	Huddersfield (Dalton)	5·77	·37	3·01	2·79	5·74	1·06	4·41	1·07	1·54	5·22	1·91	5·09	37·98
,,	,,	Leeds (Methley Park)	4·19	·85	2·57	1·94	4·87	1·06	7·44	2·13	1·51	3·78	1·53	3·91	35·78
,,	,,	Malham Tarn	8·23	2·16	6·29	3·92	5·57	2·49	6·56	3·04	5·48	7·71	5·49	6·98	63·92
,,	,,	Ripon (Mickley)	3·98	·88	3·24	2·92	4·94	·79	5·47	1·90	1·55	5·27	3·21	3·97	38·12
,,	York, E.R.	Patrington	2·51	·64	2·04	1·97	2·75	·98	2·54	1·57	1·09	2·40	1·94	3·60	24·03
,,	,,	Brantinghamthorpe	3·58	1·09	2·57	1·42	5·81	·91	2·87	2·52	1·12	3·93	1·89	4·37	32·08
,,	,,	Pocklington (Warter)	3·55	1·45	3·77	2·22	4·28	1·04	3·54	2·74	1·46	3·60	2·25	3·80	33·70
,,	York, N.R.	Malton	3·59	·81	2·29	2·35	3·30	·64	4·66	2·49	1·27	2·77	1·94	3·66	29·77
,,	,,	Scarborough	3·84	1·03	1·94	2·46	4·01	·78	3·81	1·82	1·26	2·47	2·25	4·07	29·74
,,	,,	Northallerton	3·19	·50	1·84	1·85	3·34	·82	4·49	2·57	1·23	3·59	2·97	3·42	29·81
,,	,,	Lockwood Beck	3·78	1·26	1·60	3·10	3·27	1·19	7·33	2·32	1·89	2·75	3·54	6·20	38·23
X.	Durham	Darlington (South End)	3·32	·71	2·48	1·98	4·23	·95	4·52	1·46	1·91	4·10	3·09	3·87	32·62
,,	,,	Hartlepool(HurworthBurn)	3·66	1·25	2·60	1·62	3·38	·63	6·07	1·63	1·43	3·45	4·15	3·73	33·60
,,	,,	Wolsingham	6·41	·98	4·16	2·36	4·30	1·40	5·05	1·12	1·59	7·18	6·11	5·22	45·88
,,	Northumberland	Haltwhistle(UnthankHall)	6·20	·98	3·15	2·43	4·21	2·37	5·68	1·24	4·57	4·61	4·64	5·37	45·45
,,	,,	Morpeth (Meldon Park)	4·97	1·40	3·48	1·61	2·61	1·47	3·08	1·03	2·42	4·54	4·08	3·75	34·44
,,	,,	Alwinton (Biddleston)	4·62	1·37	4·81	1·97	3·38	1·55	4·35	·97	2·40	5·76	5·84	4·10	41·12
,,	,,	Howick Hall	2·32	1·08	3·08	1·36	3·18	1·51	3·65	1·08	2·46	4·32	3·47	3·71	31·22
,,	Cumberland	Borrowdale (Seathwaite)	15·79	3·72	9·93	6·82	8·10	4·70	10·69	8·72	20·70	11·27	14·78	18·62	133·84
,,	,,	Scaleby Hall	3·33	1·29	2·39	1·90	3·49	2·27	4·52	1·72	3·76	4·01	3·02	3·90	35·60
,,	Westmoreland	Kendal	5·45	1·63	5·86	3·88	5·57	1·89	6·15	2·48	6·98	7·49	5·38	6·22	58·98
,,	,,	Kirkby Stephen	6·02	·94	4·09	3·55	4·64	1·32	6·42	1·94	5·36	6·42	4·55	7·11	52·36
,,	,,	Lowther Castle	3·08	2·40	2·94	5·65	5·87	1·65	4·48	·98	4·14	6·70	3·50	5·84	47·23

MONMOUTH, WALES AND THE ISLANDS.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Monmouth.....	Newport (Gold Tops)	5·89	1·54	4·50	2·80	7·09	·75	4·42	1·89	3·11	6·28	5·39	5·69	49·35
,,	,, ...	Abergavenny.....	5·77	1·95	4·03	2·93	8·04	·95	2·37	1·90	2·12	6·30	4·32	5·92	46·60
,,	Glamorgan.....	Cardiff Castle	5·02	1·11	4·04	2·94	5·97	·72	4·19	1·79	3·92	5·52	5·12	6·27	46·61
,,	,, ...	Ystalyfera (Tan-y-rallt) ...	7·07	1·87	9·55	5·18	5·97	1·50	7·13	5·28	7·54	12·43	8·46	9·35	81·33
,,	Carmarthen	Carmarthen Asylum	5·80	1·84	6·34	2·41	5·08	1·31	6·06	1·85	7·25	8·04	6·26	6·49	58·73
,,	,, ...	Llandovery	6·10	1·69	7·50	2·95	6·09	1·90	5·74	1·99	6·42	8·09	6·33	7·91	62·71
,,	Pembroke	Stackpole Court	4·58	2·16	5·33	2·39	3·96	1·63	4·46	1·10	4·82	6·71	5·82	5·75	48·71
,,	,, ...	Fishguard (Castle Hill) ...	3·22	1·84	5·46	2·73	3·88	1·74	4·78	1·48	5·93	6·69	6·78	6·73	51·26
,	Cardigan	Aberystwith (Cwmsymlog)	7·21	2·14	6·15	2·11	4·58	2·10	6·64	3·06	6·10	11·68	6·53	6·30	64·60
,,	Brecknock.....	Brecknock.....	5·47	1·84	5·86	3·13	5·64	1·49	3·28	1·72	3·72	7·04	4·42	7·00	50·61
,,	Radnor	Llandrindod Wells	5·01	1·56	3·95	2·14	5·07	2·62	3·79	1·93	3·76	5·69	4·02	5·84	45·38
,,	,, ...	Rhayader (Nantgwillt) ...	8·39	2·43	6·44	3·26	7·19	1·55	5·89	2·71	5·82	10·20	7·68	13·13	74·69
,,	Montgomery.....	Carno (Tybrith)	5·75	1·63	5·12	2·45	6·38	2·07	3·87	2·18	4·70	7·13	5·50	9·13	55·91
,,	Flint	St Asaph (Nantllys)	3·41	·59	2·36	1·77	6·78	1·37	2·74	1·18	3·00	5·24	2·67	4·24	35·35
,,	Denbigh.....	Rosset (Trevalyn Hall) ...	3·51	·93	1·83	1·48	6·77	1·21	2·35	·67	3·28	3·97	2·05	3·99	32·04
,,	Merioneth	Trawsfynydd.....	8·79	1·61	7·58	4·69	5·02	1·99	7·22	3·76	7·64	9·08	5·27	9·71	72·36
,,	,, ...	Corwen (Rhug Gardens) ...	5·55	·90	4·03	2·73	4·97	2·13	3·28	1·25	3·05	5·16	2·35	6·32	41·72
,,	Carnarvon.....	Port Madoc	6·35	3·44	6·10	2·61	4·26	2·32	6·33	3·17	7·83	6·62	7·41	7·65	64·09
,,	Anglesey	Llanerchymedd (Llwydiarth	3·22	1·94	3·45	3·02	4·76	1·46	5·60	2·87	5·70	6·81	4·68	6·22	49·73
,,	Isle of Man	Douglas .....Esgob)	4·37	2·09	4·11	2·34	6·29	1·30	4·93	2·52	4·54	4·61	4·72	7·28	49·10
,,	Jersey.....	St. Aubins (Noirmont)	4·56	1·31	3·27	2·19	4·56	·98	3·06	1·81	1·49	7·61	4·03	6·54	41·41
,,	Guernsey	Villa Carey	4·92	1·56	2·52	2·66	3·54	·79	3·14	1·75	3·21	6·57	4·07	5·52	40·25
		SCOTLAND.													
XII.	Wigton	Garliestown (Galloway House)	3·80	2·41	3·82	1·28	4·91	1·18	3·00	3·02	5·79	5·10	3·96	6·15	44·42
,,	,, ...	Corsewall	3·99	2·14	2·60	1·25	3·20	·58	2·73	2·03	3·09	3·35	4·14	5·63	34·73
,,	Kirkcudbright ...	Dalbeattie(Colvend Manse)	3·60	2·25	4·17	2·00	5·01	1·05	3·50	2·86	5·01	5·13	3·71	5·51	43·80
,,	Dumfries	Moffat (Ericstane)	6·75	3·60	6·05	2·50	4·85	·60	4·00	2·90	6·05	4·80	8·30	5·60	56·00
,,	Roxburgh	New Castleton (The Flatt).	4·60	1·90	6·50	2·50	3·90	2·30	5·10	3·70	8·50	5·40	5·20	6·00	55·60
,,	,, ...	Hawick (Branxholme).....	5·05	1·42	3·32	1·94	4·18	1·28	3·85	·86	4·17	4·87	4·13	3·61	38·68
,,	,, ...	Jedburgh	2·65	·68	2·95	1·65	3·41	1·98	3·68	·93	2·32	4·65	3·11	3·29	31·30
XIII.	Peebles	Glenrath	4·25	2·10	3·27	3·09	3·93	1·01	2·81	1·44	4·35	4·71	3·69	4·59	39·24
,,	,, ...	N. Esk Res. [Penicuick]...	5·95	1·55	2·70	1·70	4·55	1·45	3·20	2·25	4·60	4·50	3·50	2·60	38·55
,,	Berwick.....	Marchmont House	4·05	1·25	4·16	1·69	5·10	1·53	3·83	2·02	2·57	4·46	4·32	3·22	38·20

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Haddington	East Linton	3·67	1·08	3·16	1·85	4·14	1·39	2·50	1·60	2·14	4·29	2·50	2·65	30·97
,,	Edinburgh	Charlotte Square	3·00	1·20	1·70	1·20	4·11	1·48	2·87	·74	2·42	3·58	1·55	2·20	26·05
	Linlithgow	Bathgate	3·62	1·10	2·07	1·72	4·51	1·94	1·75	1·29	4·27	4·09	2·33	3·59	32·28
XIV.	Lanark	Biggar (Wiston)	6·30	2·40	6·00	1·70	4·20	·80	3·30	1·60	4·00	10·50	2·60	4·20	47·60
,,	,,	Cambuslang	4·00	1·29	2·70	1·76	2·73	1·30	2·18	1·52	4·58	3·32	3·15	3·87	32·40
,,	Ayr	Colmonell	5·30	1·99	3·48	1·97	3·31	1·10	3·01	2·58	5·05	4·24	5·01	7·04	44·08
,,	,,	Ayr (Auchinlee)	4·25	1·65	2·35	1·62	2·80	·91	2·16	1·80	3·40	3·37	3·40	4·56	32·27
,,	,,	Kilmarnock (North Craig)	4·19	2·08	3·44	1·38	2·67	·95	2·79	2·59	4·08	3·24	4·16	3·80	35·37
XV.	Dumbarton	Arrochar	9·20	3·95	4·65	3·25	3·30	3·25	4·40	4·60	7·95	8·80	7·05	5·85	66·25
,,	Stirling	Killearn	7·81	2·12	4·62	3·68	3·39	1·38	3·12	2·68	7·37	5·64	5·84	4·44	52·09
,,	Bute	Arran (Pladda)	3·77	2·93	2·80	1·63	3·73	1·88	1·69	3·38	5·37	4·20	3·71	4·93	40·02
,,	Argyll	Lochgilphead (Kilmory)	6·84	2·55	3·50	3·59	4·12	2·00	4·28	3·23	6·76	5·32	8·34	6·19	56·72
,,	,,	Inverary	9·30	3·70	4·40	1·10	2·40	1·30	1·70	1·60	1·90	2·50	5·60	2·80	38·30
,,	,,	Appin (Airds)	4·80	3·30	3·62	3·18	3·50	2·05	5·15	4·23	7·80	6·19	6·10	6·11	56·03
,,	,,	Strontian (Laudale)	7·37	4·01	5·01	6·60	3·75	2·83	5·77	5·61	7·84	6·54	8·90	9·31	73·54
,,	,,	Cantire (Devaar)	5·01	2·16	2·42	1·74	2·58	1·50	2·79	2·48	3·38	3·05	4·65	4·71	36·47
,,	,,	Islay (Eallabus)	5·86	2·61	3·29	2·11	2·66	1·57	3·91	2·94	5·08	5·63	5·50	7·85	49·01
,,	,,	Jura (Fladda)	5·20	2·80	4·85	2·55	3·85	2·40	6·60	3·25	6·85	5·70	6·85	6·30	57·20
,,	,,	Tyree (Hynish)	4·77	2·46	2·78	2·29	3·07	1·09	3·23	3·57	4·25	5·23	6·29	6·70	45·73
XVI.	Clackmannan	Tillicoultry	5·22	1·29	3·90	1·61	5·24	1·65	3·44	1·91	5·61	5·58	3·21	4·14	42·80
,,	Fife	Kilconquhar (Balcarres)	4·72	1·80	3·25	2·20	5·00	1·10	4·50	1·60	3·00	4·50	2·80	3·10	37·57
,,	,,	Strathmiglo (Loden Urquht)	4·10	1·44	3·60	1·65	4·79	1·30	3·91	1·25	3·27	3·52	1·87	2·75	33·45
,,	Perth	Stronvar	11·29	3·32	6·35	5·86	4·03	2·03	4·77	3·54	10·59	7·35	7·75	5·96	72·84
,,	,,	Dunkeld (Inver Braan)	4·53	1·49	3·94	2·17	3·07	1·13	4·42	1·22	4·09	4·08	3·62	2·61	36·37
,,	,,	Dalnaspidal H.R.S.	6·46	2·32	4·20	4·38	4·82	2·05	4·36	2·17	7·18	5·47	6·46	4·48	54·35
,,	Forfar	Dundee (Broughty Ferry)	3·02	1·25	2·61	1·20	3·29	·97	3·98	1·22	2·47	2·86	1·71	2·08	26·66
,,	,,	Kirriemuir (Lintrathen)	2·77	2·02	6·15	1·13	3·48	·78	4·03	1·35	3·53	3·77	2·11	1·92	33·04
XVII.	Kincardine	The Burn	2·70	1·60	4·70	·90	3·30	·70	4·30	1·10	3·30	5·30	2·30	2·50	32·70
,,	Aberdeen	Coldstone Manse	2·85	·91	2·29	·70	4·64	1·07	3·45	1·04	2·03	3·18	2·84	3·32	28·32
,,	,,	Inverury (Manar Farm)	2·43	1·05	1·75	·95	3·68	·95	2·65	1·06	1·21	2·25	2·32	3·20	23·50
,,	,,	Old Deer	2·80	1·79	1·68	1·90	3·19	1·44	2·29	1·00	1·73	2·10	2·37	4·82	27·11
,,	Moray	Grantown	3·28	1·07	1·28	·80	5·25	1·20	2·59	1·81	2·10	1·69	3·51	4·03	28·61
,,	,,	Gordon Castle	2·36	·89	·85	1·56	3·72	1·23	2·44	2·37	1·68	2·18	3·48	4·10	26·86
,,	,,	Elgin	2·20	·87	·81	1·38	3·58	1·32	2·53	2·04	1·79	2·03	2·94	4·14	25·63
,,	Nairn	Nairn (Acharéidh)	2·06	1·08	·77	·93	3·21	1·07	2·40	1·29	2·35	1·54	1·80	2·63	21·13

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVIII.	Ross	Strome Ferry H.R.S.	6·57	3·26	3·28	4·45	3·49	3·42	4·94	3·79	6·15	5·78	8·67	8·27	62·07
,,	,, ...	Strathconan	6·96	2·02	2·38	3·18	2·41	4·04	4·20	1·69	3·52	4·93	5·21	7·09	47·63
,,	,, ...	Braemore House	6·31	6·11	2·52	2·75	4·09	4·34	5·32	4·08	3·64	7·27	7·60	7·46	61·49
,,	,, ...	Ardross Castle	5·39	1·34	2·07	1·22	4·29	1·21	1·48	·63	3·03	3·24	4·00	4·10	32·00
,,	Inverness	Fort William	8·69	4·75	4·94	5·98	3·87	2·95	5·10	4·93	8·75	5·57	8·95	7·31	71·79
,,	,, ...	Skye (Broadford).....	11·39	9·86	9·21	4·16	5·75	4·89	6·16	9·23	11·85	7·22	18·06	12·55	110·33
,,	,, ...	N. Uist (Loch Maddy) ...	4·08	2·60	3·20	3·52	1·26	1·31	3·89	2·81	6·69	4·88	5·88	6·74	46·86
,,	,, ...	Invergarry	5·96	2·87	3·63	4·99	3·12	2·00	4·22	3·30	7·18	4·50	8·66	7·77	58·20
,,	,, ...	Aviemore H.R.S.	3·30	1·57	1·29	1·29	4·82	·94	2·22	1·77	2·45	1·95	4·03	3·59	29·22
XIX.	Sutherland	Invershin	1·06	·20	1·50	1·67	2·21	1·17	2·97	3·81	3·14	3·87	3·07	3·47	28·14
,,	,, ...	Scourie	5·13	2·08	1·48	2·61	2·43	2·79	2·74	3·06	2·63	2·41	5·92	7·00	40·28
,,	,, ...	Forsinard H.R.S.....	3·43	1·20	1·08	1·87	3·13	2·38	2·75	2·39	1·71	2·30	2·80	5·51	30·55
,,	Caithness	Wick H.R.S.	3·15	1·60	1·31	1·45	2·73	1·44	2·63	2·33	1·57	1·59	2·70	4·04	26·54
,,	Shetland	Lerwick (Montfield)	6·07	2·73	1·52	2·90	3·11	2·32	4·01	1·43	3·52	3·37	5·11	6·15	42·24
		IRELAND.													
XX.	Cork	Dunmanway (Coolkelure).	6·30	4·83	11·20	4·30	5·59	1·39	7·41	5·92	8·94	10·64	6·40	8·29	81·21
,,	,, ...	Cork (Blackrock).....	3·64	4·02	6·58	2·50	3·31	1·07	5·14	2·77	4·03	5·96	2·23	4·38	45·63
,,	,, ...	Fermoy (Glenville)	4·24	3·73	5·27	2·25	4·04	1·37	6·00	3·54	4·73	6·80	2·59	5·63	50·19
,,	Kerry.....	Dromore Castle.....	6·88	5·64	5·73	1·72	4·74	1·87	7·66	3·82	4·39	7·77	4·64	7·50	62·36
,,	,, ...	Dingle	6·49	4·58	5·46	1·95	5·59	1·35	6·39	5·98	4·64	6·40	8·31	4·52	61·66
,,	,, ...	Tralee (Castlemorris)	4·16	2·77	4·37	3·11	2·98	1·10	4·91	3·68	4·28	5·24	4·83	6·82	48·25
,,	Waterford	Waterford (Brook Lodge).	2·47	3·72	4·22	2·26	3·65	·55	4·28	3·04	4·44	5·70	2·95	5·60	42·88
,,	Tipperary	Tipperary, (Henry Street)	4·38	3·04	2·34	2·39	3·60	1·53	4·73	2·87	3·74	6·97	1·82	5·31	42·72
,,	,, ...	Nenagh (Castle Lough) ...	5·17	2·62	3·65	3·53	4·14	1·86	4·06	2·68	4·00	5·21	3·06	6·68	46·66
,,	,, ...	Ballingarry (Hazelfort) ...	3·57	1·87	2·21	2·11	3·06	2·14	2·44	2·28	3·19	4·25	2·39	4·45	33·96
,,	Limerick	Jane Ville.....	5·08	4·51	2·65	3·43	4·01	·87	3·86	3·53	4·05	7·33	4·25	5·36	48·93
,,	Clare	Ennis.....	4·37	2·47	3·83	2·61	4·00	1·98	3·78	2·71	5·07	4·29	4·75	5·67	45·53
,,	,, ...	Miltown Malbay	4·66	2·98	3·54	2·40	3·37	2·10	4·60	3·88	4·77	3·25	5·46	5·72	46·73
XXI.	Wexford	Ballyhyland	3·86	3·75	3·99	2·53	4·08	1·83	3·84	3·62	4·51	6·61	3·02	5·66	47·30
,,	,, ...	Gorey (Courtown).....	4·22	3·61	2·88	2·07	4·64	1·18	3·99	2·30	3·97	6·59	2·59	3·82	41·86
,,	Kilkenny	Rosbercon Castle	2·69	2·25	3·86	2·69	2·96	·46	3·50	3·36	4·18	5·44	2·43	3·74	37·56
,,	,, ...	Kilkenny (Lavistown).....	3·11	3·15	1·73	1·46	3·24	1·07	3·93	2·20	4·23	5·02	2·83	3·72	35·69
,,	Wicklow	Bray (Fassaroe)	4·81	3·61	3·53	3·05	6·47	1·75	2·74	1·46	2·70	9·26	4·69	5·13	49·20
,,	Carlow	Browne's Hill	3·43	2·95	2·31	2·05	3·75	·81	3·00	2·16	3·93	5·64	2·94	3·35	36·30

IRELAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Queen's Co.	Abbey Leix (Blandsfort)...	3·91	2·71	2·29	2·27	3·88	1·06	3·39	2·25	3·53	5·48	2·07	4·87	37·71
,,	Kildare	Straffan House.....	3·74	2·16	2·86	2·26	4·52	·91	2·96	3·12	3·91	5·60	2·48	3·66	38·18
,,	Dublin	Glasnevin(BotanicGardens)	3·04	2·11	1·67	1·25	5·35	·87	1·38	1·31	2·60	5·66	2·00	2·68	29·92
,,	Meath	Trim	3·84	3·04	3·19	1·95	4·18	1·14	3·79	2·02	3·40	5·93	2·20	3·50	38·18
,,	,, ...	Moynalty (Westland)	3·55	2·38	4·23	2·05	5·09	1·28	3·56	2·37	3·36	5·49	2·75	5·12	41·23
,,	Westmeath	Mullingar (Belvedere).....	3·66	2·52	3·38	1·97	3·07	1·55	3·23	2·37	3·82	4·88	2·29	4·21	36·95
,,	,, ...	Athlone (Twyford)	3·53	2·92	4·50	2·33	3·47	1·40	4·37	2·51	3·67	5·43	2·81	3·46	40·40
,,	Louth	Stephenstown	3·49	2·58	3·35	1·45	3·98	2·31	3·40	1·72	3·29	4·80	2·13	4·71	37·21
,,	,, ...	Greenore	3·03	2·72	3·22	1·55	5·25	1·54	3·49	1·70	2·43	3·97	2·14	4·15	35·19
,,	Longford	Edgeworthstown	3·02	2·97	3·35	2·05	3·28	2·45	5·39	2·68	3·61	4·55	3·38	4·52	41·25
XXII.	Galway	Ballinasloe	4·00	2·17	3·72	3·37	3·88	1·30	3·06	2·45	3·34	4·64	3·55	4·51	39·99
,,	,, ...	Kylemore	7·02	5·26	8·25	4·03	6·24	1·96	10·40	6·82	8·13	7·03	7·64	6·85	79·63
,,	,, ...	Tuam	3·94	3·23	5·00	2·27	5·13	1·50	4·82	3·64	5·08	5·05	4·81	6·13	50·60
,,	Mayo	Ballinrobe (Cranmore) ...	4·16	3·55	4·85	2·89	5·18	1·48	4·63	4·63	7·49	5·36	5·95	6·99	57·16
,,	,, ...	Westport (Oldhead).....	5·60	3·60	4·20	2·70	4·40	2·40	4·20	4·60	5·00	4·90	5·70	4·90	52·20
,,	,, ...	Crossmolina (Enniscoe) ...	4·98	3·15	4·49	2·56	5·11	1·37	4·52	2·78	6·66	5·66	7·08	9·04	57·40
,,	Sligo	Sligo (Mount Shannon) ...	4·53	2·98	2·44	2·01	3·21	1·74	3·26	3·09	3·44	5·75	3·90	6·61	42·96
,,	Leitrim	Carrick-on-Shannon	2·66	2·95	4·06	1·62	1·96	1·62	3·41	2·98	2·90	4·96	3·99	5·63	38·74
XXIII.	Cavan	Belturbet (Red Hills)	3·23	2·63	3·13	1·91	3·37	2·33	3·74	2·50	3·72	5·12	2·95	5·33	39·96
,,	Fermanagh	Enniskillen (Florence Crt.)	5·12	3·77	6·10	3·88	3·42	2·11	3·21	3·43	4·97	4·18	4·02	4·27	48·48
,,	Monaghan.....	Rockcorry	3·32	2·25	2·76	1·92	3·47	1·76	3·76	2·33	4·22	4·68	3·37	5·39	39·23
,,	Armagh.....	Armagh	4·28	1·95	2·51	1·32	3·54	1·62	3·01	2·45	3·33	4·69	2·84	4·28	35·82
,,	Down.....	Newcastle (Fairleigh)	4·52	3·34	6·66	3·90	7·32	1·55	4·54	1·83	3·99	6·42	5·45	7·54	57·06
,,	,, ...	Donaghadee	3·58	1·58	2·89	1·32	4·78	·64	3·63	2·14	2·80	4·46	2·81	4·26	34·89
,,	Antrim	New Barnsley	5·46	2·83	3·01	1·70	5·48	1·44	4·02	3·23	3·65	5·39	4·85	6·73	47·79
,,	,, ...	Ballymena.....	6·22	3·14	3·37	1·70	3·40	1·65	3·34	1·99	2·88	4·17	3·47	5·51	40·84
,,	,, ...	Bushmills (Dundarave) ...	4·92	2·71	2·37	1·86	3·04	2·23	2·21	2·02	3·16	3·34	3·55	4·82	36·23
,,	Londonderry.....	Newtown Limavady	4·92	2·69	1·73	1·55	2·54	3·37	2·67	1·63	3·11	3·82	3·26	5·41	36·70
,,	Tyrone	Stewartstown (Ardtrea) ...	3·88	2·76	2·76	1·48	3·14	1·79	3 37	2·15	3·25	4·86	3·08	5·06	37·58
,,	,, ...	Omagh (Edenfel)	4·26	3·01	2·95	1·54	3·32	1·60	2·71	2·70	3·76	3·82	3·28	5·08	38·03
,,	Donegal.....	Castlefinn (Finn Lodge) ...	4·65	2·53	2·46	2·00	2·04	3·17	2·62	1·66	4·56	4·12	4·50	4·54	38·85
,,	,, ...	Ramelton (Killygarvan) ...	7·45	3·48	2·85	2·99	3·10	3·15	3·66	2·09	4·41	4·30	5·11	6·19	48·78

MONTHLY RAINFALL IN 1886.

I HAVE this year omitted the series of tables and diagram first given in 1885, because I cannot find that they have been used sufficiently to justify the expenditure of time and of money (about £8) which their insertion involves.

I never have spared outlay where I believed it was for the good of the work, but it seems to me that what with (1) the tables given monthly in the *Meteorological Magazine*; (2) the observers' notes on the months (ante, pages [54] to [92]); (3) the tables of monthly fall at 233 stations on pages [137] to [143]; (4) the series of monthly maps; and (5) the following short notes on each month, the subject is treated as fully as is needed.

NOTES ON EACH MONTH OF 1886.

JANUARY.

Much snow and rain, the fall above the average generally, the few stations with deficiencies being in the English Lake District, and in the S.W. of Scotland and of Ireland.

FEBRUARY

Cold and very dry, the fall was chiefly snow; there were very few stations at which the fall reached the average, and there was not one at which it was 1 inch above the average. Several stations in the S.E. of England had less than $\frac{1}{4}$ of their average, and a few even as little as $\frac{1}{4}$ of an inch.

MARCH.

Wet generally, the only exceptions being in the N. and N.W. of Scotland, the fall in Nairnshire being under an inch; while, on the other hand, the falls in the S.W. of Ireland were very large—Coolkelure 11·20 in., Derreen Kenmare 10·26 in., and Gap of Dunloe 10·50 in.

APRIL.

A very average month—rather dry in London and in the neighbourhood of Aberdeen, but not exceptionally so.

MONTHLY MAPS OF RAINFALL IN 1886

• Within an inch of average.

\+ More than 1 in. above average.

— ,, ,, ,, below ,,

[*Between pp.* [144] *&* [145].

MONTHLY MAPS OF RAINFALL IN 1886.

• Within an inch of average.

\+ More than 1 in. above average.

— ,, ,, ,, below ,,

[*Between pp.* [144] & [145].

MAY.

A very wet month, owing to the exceptional rains from the 11th to 13th, fully reported on p. [121]. No station with less than the average, hundreds with twice the average, the following 19 with upwards of three times the average, and two of them (Barnsley and Barnsley, Church Street) more than four times the average fall.

Stations at which the total rainfall in May, 1886. *was at least three times the average.*

Station.	Mean for May, 1870—79.	May, 1886.	Average being 100, May, 1886.
Staunton-on-Wye	2·13	7·42	348
Kington (Lynhales)	2·20	7·02	319
Bishop's Castle (More Rectory)	2·25	8·32	370
Church Stretton (Woolstaston)	2·39	9·49	398
Wolverhampton (Wrottesley)	2·27	7·00	309
Chesterfield	2·21	7·46	337
,, (Linacre Reservoir)	2·16	7·97	368
Killamarsh (Norwood)	1·91	6·50	340
Sheffield (The Edge)	2·14	7·19	336
,, (Redmires)	2·85	8·63	303
,, (Broomhall Park)	2·19	7·11	325
Rotherham (Moorgate Grove)	1·89	6·11	323
Elsecar	1·79	6·79	379
Wath-upon-Dearne (Chapel Street)	1·72	6·41	372
Worsborough	1·83	7·22	394
Penistone	2·26	7·18	317
Barnsley (Church Street)	1·71	7·23	422
,,	1·52	6·24	411
Dublin (Fitzwilliam Square)	1·72	5·47	318

JUNE.

Very dry, no station at which the average was exceeded by an inch, very few at which the average was reached, and many at which the total fall was under $\frac{1}{2}$ an inch.

JULY.

Slightly below the average at Hitchen and Londonderry; near the average in most other places; and greatly in excess near the Wash, and also in the districts of Lancashire and Yorkshire, visited by the great thunderstorm of July 25th.

AUGUST.

Rain generally below the average, though the early part of the month was misty; there was a slight excess in Kent, but it was quite unimportant.

SEPTEMBER.

The distribution of rainfall for this month was rather irregular, but it was, on the whole, near the average ; dry in the S. and E., and more or less above the average in the N.W. of England and the S. of Scotland.

OCTOBER.

Rainfall irregular ; deficient along the W. coasts of Ireland and Scotland, and above the average in the S. and E. of Ireland and over most of England (especially Devon and Cornwall) and in Wales.

NOVEMBER.

Remarkable for the regular distribution of rain over the country. Of course there were great differences, Seathwaite had 14·78 inches and at Loughborough it was not much above 1 inch, but these extremes do not so seriously contradict the above remark as would appear ; the Seathwaite average for November is about 14 in. and the Loughborough average is about 2 in. ; but by regular one desires to imply usual, and not uniform—a uniform distribution would indeed be a phenomenon.

DECEMBER.

A month of very heavy fall, only one station with less than the average—Braemar—and many stations at which, owing to the snow-storm of the 26th, the total was as much as, or more than, twice the average.

ON THE RELATION OF THE TOTAL RAINFALL IN 1886 TO THE AVERAGE.

On subsequent pages the total rainfall of the past year is rigorously compared with the averages by the same gauges in the same positions during identical periods. Any one who thinks the matter calmly over will see that this is the only sort of comparison which can lead to trustworthy results, for though it is much less trouble to take hap-hazard averages regardless of their length, and of whether or not they include groups of dry or of wet years, the process is one sure to yield bad results. Even a group of ten years may be (as 1870—79 was) quite different from the mean of a long series of years, but careful investigation will show how much it differs, and then a correction can be applied. This, as has been explained in previous volumes, has been done for the period, 1870—79, and it has been shown to be 5 per cent. too high; just as, on the contrary, 1850—59 was 5 per cent. too low.

However, 1870—79 is the period for which we have the largest number of trustworthy records from stations still being continued, and therefore on the following pages we show how much above or below that average was the total fall in 1886 at each station. These differences are shown also on the accompanying map, the indications of which are explained at its foot. The broad general features are evidently a considerable excess along the Borders, and an excess generally over most of England, except at some Eastern and extreme Southern stations; a deficiency all over Scotland except the S.E. counties, and an excess in Ireland.

Taking the countries as a whole, we obtain the following values :—

ABSTRACT.

COUNTRIES.	No. of Records.	Mean 1860-69.	Mean 1870-79.	1886.	Diff. from Average 1870-79.		
					Amount.		Per cent.
		in.	in.	in.	in.		
England and Wales...	117	35·02	35·86	37·53	1·67	+	5
Scotland.....	30	38·84	40·92	37·31	3·61	—	9
Ireland	4	37·51	38·54	41·61	3·07	+	9
Mean of all Stations...	151	35·84	36·94	37·59	·66	+	2

As, however, we have already pointed out the average 1870—79 is 5 per cent. too high, therefore, as compared with a long series of years we have—

England and Wales	+10
Scotland	— 4
Ireland	+14
Mean of all Stations	+ 7

Therefore the total fall last year as a whole was rather above the average, but by no means exceptionally so.

DIFFERENCE OF TOTAL RAINFALL IN 1886 FROM THE AVERAGE OF 1870-79.

The round dot indicates a rainfall within 10 per cent. of the average.
The + and — respectively show excess or defect of between 10 and 25 per cent
The same signs enclosed by a ring indicate a departure from the average of more than 25 per cent.

[*Face p.* [148]

COMPARISON OF THE RAINFALL OF THE YEAR 1886, WITH THE AVERAGE OF THE YEARS 1870-79.

ENGLAND & WALES.

DIV.	COUNTY.	STATION.	Average.		Depth in 1886.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
I.	Middlesex ...	London (Camden Square)	25·68	27·24	27·01	·23 —	1
II.	Surrey	Seething Wells	26·55	25·73	22·02	3·71 —	14
,,	,, ...	Wimbledon	23·48	25·11	26·12	1·01 +	4
,,	,, ...	Kew Observatory	23·28	24·76	25·44	·68 +	3
,,	Kent	Maidstone (Hunton Ct.)..	26·00	26·06	26·11	·05 +	0
,,	,, ...	Charing (Otterden).....	29·09	31·02	28·41	2·61 —	8
,,	,, ...	Greenwich (Royal Obser.)	25·18	25·39	24·21	1·18 —	5
,,	West Sussex.	Chichester (Chilgrove) ...	33·22	35·03	38·04	3·01 +	9
,,	East Sussex.	Lewes (Glynde Place) ...	33·65	33·75	36·47	2·72 +	8
,,	,, ...	Maresfield (Forest Lodge)	31·48	33·37	36·65	3·28 +	10
,,	Hampshire ..	Isle of Wight (Osborne).	30·73	29·21	32·21	3·00 +	10
,,	,, ...	Petersfield (Liss Place) ...	38·03	36·65	37·06	·41 +	1
,,	Berkshire ...	Newbury (Welford)	28·97	31·92	33·81	1·89 +	6
,,	,, ...	Long Wittenham	27·38	27·24	31·31	4·07 +	15
III.	Herts	St. Albans (Gorhambury).	27·85	29·07	27·73	1·34 —	5
,,	,, ...	Hemelhempstead	26·39	28·66	29·11	·45 +	2
,,	,, ...	Hertford (Bayfordbury)..	25·01	27·02	26·26	·76 —	3
,,	,, ...	Tring (Cowroast)	27·59	30·62	30·90	·28 +	1
,,	,, ...	Hitchin	23·92	25·67	26·60	·93 +	4
,,	,, ...	Royston	23·57	23·74	25·12	1·38 +	6
,,	Buckingham.	High Wycombe	25·71	25·87	27·06	1·19 +	5
,,	Oxford	Banbury (High Street) ..	26·22	28·51	31·49	2·98 +	10
,,	Northampton	Northampton (Althorp)..	23·35	26·93	28·37	1·44 +	5
,,	,,	Wellingborough.....	24·09	25·72	33·08	7·36 +	29
,,	Bedford	Cardington .....0 ft.	22·49	25·13	25·56	·43 +	2
,,	,, ...	,, ... 3 ft.	21·76	23·69	24·63	·94 +	4
,,	Cambridge...	Ely (Stretham)	20·61	23·11	23·67	·56 +	2
IV.	Suffolk	Bury S. Edmund (Westley)	23·52	25·51	24·41	1·10 —	4
,,	,, ...	,, (Culford)	24·84	26·20	24·21	1·99 —	8
,,	,, ..	Carlton Colville	24·29	26·42	23·81	2·61 —	10
,,	Norfolk	Norwich (Honingham Hall)	23·98	27·31	27·69	·38 +	1
,,	,, ...	Hunstanton	19·56	23·26	23·46	·20 +	1
V.	Wiltshire ...	Salisbury Plain (Chitterne)	29·28	30·53	31·29	·76 +	2
,,	Wiltshire ...	Swindon (Pen Hill)	28·59	29·64	31·36	1·72 +	6
,,	Dorset	Cerne Abbas (Melbury)...	39·99	40·92	35·95	4·97 —	12
,,	Devon	Tavistock Public Library	43·36	52·52	45·39	7·13 —	14
,,	,, ...	Exeter (D. & E. Inst.) ...	31·76	34·69	33·46	1·23 —	4

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average.		Depth in 1886.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
V.	,, ...	Barnstaple	39·91	42·43	45·03	2·60 +	6
,,	Cornwall ...	Penzance (South Parade).	41·51	46·80	44·73	2·07 —	4
,,	,, ...	Bodmin (Castle St.) 2½ ft.	47·71	52·01	51·91	·10 —	0
,,	Somerset ...	Glastonbury (Street) 1 ft.	30·01	33·14	38·18	5·04 +	15
,,	,, ...	Sherborne Reservoir	42·10	47·26	45·77	1·49 —	3
VI.	Gloucester ...	Clifton	34·09	36·36	39·70	3·34 +	9
,,	Hereford ...	Ross (The Graig)	28·21	31·75	38·94	7·19 +	23
,,	Shropshire...	Oswestry (Hengoed)	35·65	39·55	43·68	4·13 +	10
,,	Worcester ...	Northwick Park.....	28·02	32·34	33·89	1·55 +	5
,,	,, ...	Tenbury (Orleton)	30·90	33·26	35·37	2·11 +	6
VII.	Leicester ...	Thornton Reservoir	25·61	27·59	30·67	3·08 +	11
,,	,, ...	Loughborough(Cedar Cot)	27·67	29·54	31·66	2·12 +	7
,,	,, ...	Belvoir Castle.....	24·48	25·75	29·83	4·08 +	16
,,	Lincoln	Spalding (Pode Hole).....	25·34	24·82	30·25	5·43 +	22
,,	,, ...	Lincoln .....M.S.&L.R.	20·87	23·70	24·57	·87 +	4
,,	,, ...	Gainsborough M.S.&L.R.	21·66	22·35	25·87	3·52 +	16
,,	,, ...	Stockwith ...M.S.&L.R.	21·35	23·20	26·87	3·67 +	16
,,	,, ...	Brigg .....M.S.&L.R.	24·12	23·31	19·83	3·48 —	15
,,	,, ...	Grimsby .....M.S.&L.R.	21·39	23·04	23·14	·10 +	0
,,	,, ...	Barnetby .....M.S.&L.R.	22·16	25·17	28·54	3·37 +	13
,,	,, ...	Appleby Vicarage	24·10	26·64	27·15	·51 +	2
,,	,, ...	New Holland M.S.&L.R.	22·66	25·29	21·67	3·62 —	14
,,	Nottingham.	Worksop .....M.S.&L.R.	22·47	25·63	26·97	1·34 +	5
,,	,, ...	Retford .....M.S.&L.R.	22·74	23·04	24·94	1·90 +	8
,,	Derby.....	Bretby [Burton].....	27·41	30·97	33·53	2·56 +	8
,,	,, ...	Chesterfield ..M.S.&L.R.	26·93	30·54	34·50	3·96 +	13
,,	,, ...	Combs Moss M.S.&L.R.	49·62	45·71	49·39	3·68 +	8
,,	,, ...	,, ReservoirM.S.&L.R.	50·01	45·67	40·37	5·30 —	12
,,	,, ...	Chapel-en-le-FrithMS&LR	41·95	42·56	42·38	·18 —	0
,,	,, ..	Killamarsh ...M.S.&L.R.	24·59	26·79	30·91	4·12 +	15
,,	,, ...	WoodheadStationMS&LR	52·19	49·87	59·93	10·06 +	20
VIII.	Cheshire.. ...	Bosley Reservoir MS&LR	32·04	34·10	35·69	1·59 +	5
,,	,, ...	,, Minns M.S.&L.R.	32·85	33·90	38·86	4·96 +	15
,,	,, ...	Bollington (Spond's Hill)	37·46	35·52	38·89	3·37 +	9
,,	,, ...	Whaley .....M.S.&L.R.	43·89	43·38	44·70	1·32 +	3
,,	,, ...	MarpleTopLockM.S&L.R	35·25	35·94	42·34	6·40 +	18
,,	,, ...	,, Aqueduct MS&LR	34·81	33·73	36·16	2·43 +	7
,,	,, ...	Godley Reservoir	33·98	34·85	37·05	2·20 +	6
,,	,, ..	Newton .....M.S.&L.R.	31·63	29·30	31·78	2·48 +	8
,,	,, ...	Mottram (Matley's Field)	37·73	36·32	29·87	6·45 —	18
,,	,, ...	Arnfield Reservoir	37·23	41·38	41·99	·61 +	1
,,	,, ...	Rhodes Wood Reservoir..	46·32	44·74	47·30	2·56 +	6
,,	,, ..	Woodhead Reservoir	51·83	49·74	53·76	4·02 +	8
,,	Lancashire...	Denton Reservoir	32·97	33·78	36·41	2·63 +	8
,,	,, ...	Gorton Reservoir	33·71	34·14	35·72	1·58 +	5
,,	,, ...	Manchester (Ardwick) ..	32·60	36·72	39·61	2·89 +	8
,,	,, ...	,, (Piccadilly)MS&LR	36·78	34·72	34·56	·16 —	0
,,	,, ...	Fairfield .....M.S.&L.R.	40·90	37·66	43·76	6·10 +	16
,,	,, ..	AshtonWaterhousesMSLR	36·13	39·24	42·77	3·53 +	9

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average.		Depth in 1886.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
VIII.	Lancashire ..	Bolton (The Folds).....	48·98	47·23	47·17	·06 —	0
,,	,, ...	,, (Heaton)1 ft. 3 in.	44·21	45·11	42·80	2·31 —	5
,,	,, ..	Ormskirk (Rufford)	35·00	36·65	37·21	·56 +	2
,,	,, ...	Bolton (Belmont)	56·61	59·91	63·20	3·29 +	5
,,	,, ...	Heywood (Nayden Dane).	44·13	44·67	43·42	1·25 —	3
,,	,, ...	Blackburn (Guide Res.)..	41·30	44·49	40·16	4·33 —	10
,,	,, ...	Blackpool (South Shore).	32·99	34·43	41·36	6·93 +	20
,,	,, ...	Stonyhurst College...1 ft.	48·56	48·74	52·41	3·67 +	8
,,	,, ...	Clitheroe (Downham Hall)	44·79	43·40	46·74	3·34 +	8
,,	,, ...	Cartmel (Holker)	45·63	45·13	55·86	10·73 +	24
,,	,, ...	Monk Coniston Park ...	85·55	74·86	72·30	2·56 —	3
IX.	Yorks, W.R.	Sheffield (Redmires)	39·68	42·80	43·50	·70 +	2
,,	,, ...	,, (Broomhall Pk.)	31·28	32·67	35·72	3·05 +	9
,,	,, ...	Dunford Bridge Station..	56·18	52·51	44·60	7·91 —	15
,,	,, ...	Penistone.....	30·57	34·37	39·61	5·24 +	15
,,	,, ...	Halifax (Midgely Moor)..	50·00	48·07	52·76	4·69 +	10
,,	,, ...	,, (Warley)	46·33	45·27	51·92	6·65 +	15
,,	,, ...	Leeds (Holbeck)	22·85	25·02	29·75	4·73 +	19
,,	,, ...	Arncliffe	60·07	60·95	67·79	6·84 +	11
,,	,, E.R ..	Hull (Beverley Road) ...	25·02	27·30	27·18	·12 —	0
,,	,, N.R...	Malton.....	27·46	28·44	29·77	1·33 +	5
X.	North'mblnd	N. Shields (Rosella Place)	26·06	28·02	29·69	1·67 +	6
,,	,, ...	Whittle Dean.....	25·42	27·75	32·32	4·57 +	16
,,	,, ...	Ilderton (Lilburn Tower).	28·66	31·33	31·10	·23 —	1
,,	Cumberland.	Seathwaite	154·05	134·95	133·84	1·11 —	7
,,	,, ..	Keswick Post Office 6 ft.	62·40	59·14	63·12	3·98 +	2
,,	,, ...	Bassenthwaite(Mirehouse)	53·76	50·20	54·98	4·78 +	11
,,	,, ...	Cockermouth(Whin. Hall)	57·37	52·15	58·28	6·13 +	10
,,	Westmorelnd	Kendal...	53·32	51·78	58·98	7·20 +	14
XI.	Glamorgan ..	Cardiff (Ely)	42·02	46·35	50·72	4·37 +	9
,,	Carnarvon...	Llandudno	31·00	33·63	35·99	2·36 +	7

SCOTLAND.

DIV.	COUNTY.	STATION.	Average. 1860-9.	Average. 1870-9.	Depth in 1886.	Difference from average, 1870-9. Amount.	Per cent.
			in.	in.	in.	in.	
XII.	Kircudbright	Cargen [Dumfries]	44·37	46·65	43·31	3·34 —	7
,,	Dumfries	Dumfries (Crichton Inst.)	39·00	41·84	36·81	5·03 —	12
,,	Roxburgh	Kelso (Springwood Park)	24·66	27·90	29·97	2·07 +	7
XIII.	Selkirk	Bowhill	33·03	35·21	35·61	·40 +	1
,,	Peebles	North Esk Reservoir	38·01	38·66	38·55	·11 —	0
,,	Haddington.	East Linton	23·77	29·36	30·97	1·61 +	5
,,	Edinburgh	Glencorse	37·52	40·52	44·86	4·34 +	11
XIV.	Lanark	Hamilton (Bothwell Cas)	28·89	31·72	23·71	8·01 —	25
,,	Ayr	Kilmarnock (N. Craig)	43·29	40·16	35·37	4·79 —	12
,,	Renfrew	Ryat Lynn	47·80	50·07	46·25	3·82 —	8
,,	,,	Waulk Glen	49·85	48·41	44·55	3·86 —	8
XV.	Stirling	Stirling (Kerse)	32·96	33·47	31·30	2·17 —	6
,,	Argyll	Lochgilphead (Poltalloch)	54·25	56·35	44·11	12·24 —	22
,,	,,	Stonefield	69·62	71·73	65·74	5·99 —	8
XVI.	Kinross	Loch Leven	36·22	38·05	36·20	1·85 —	5
,,	Perth	Aberfoyle	61·82	59·39	48·60	10·79 —	18
,,	,,	Dunblane (Kippenross)	36·16	36·00	32·00	4·00 —	11
,,	,,	Lanrick Castle	48·48	47·46	45·25	2·21 —	5
,,	,,	Bridge of Turk	61·89	72·32	64·70	7·62 —	11
,,	,,	Auchterarder (Colquhalzie)	40·34	40·12	39·10	1·02 —	3
,,	Forfar	Craigton M	34·88	41·96	39·51	2·45 —	6
,,	,,	Hill Head M	35·19	41·82	37·97	3·85 —	9
,,	,,	Arbroath	29·05	30·49	26·98	3·51 —	12
XVII.	Kincardine	The Burn [Brechin]	34·91	37·85	32·70	5·15 —	14
,,	Aberdeen	Braemar	33·40	38·14	33·01	5·13 —	13
,,	,,	Aberdeen (Rose Street)	29·43	31·75	27·73	4·02 —	13
,,	Elgin	Gordon Castle	29·19	32·26	26·86	5·40 —	17
XVIII	Inverness	Culloden	27·08	25·46	20·94	4·52 —	18
XIX.	Sutherland	Golspie (Dunrobin Cas.) M	27·69	31·94	27·46	4·48 —	14
,,	Orkney	Shapinsay (Balfour Cas.)	32·41	30·41	29·10	1·31 —	4

IRELAND.

XX.	Waterford	Portlaw	44·44	41·65	47·67	6·02 +	14
XXI.	Kilkenny	Inistioge (Woodstock)	39·38	46·64	46·07	·57 —	1
XXIII.	Armagh	Armagh Observatory..1ft.	32·01	30·95	35·82	4·87 +	16
,,	Antrim	Belfast (Queen's Coll.)	34·22	34·92	36·88	1·96 +	6

EXTREMES OF RAINFALL IN 1886.

Largest Rainfall, at The Stye, Cumberland..... 169·38 in.
Least Rainfall, at Gravesend, Park Place, Kent..... 18·00 ,,

ENGLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
X.	The Stye	169·38	II.	Gravesend (Park Place)	18·00
,,	Seathwaite	135·93	IV.	Great Bentley(Wick St., Osyth)	19·16
,,	Styehead Tarn	115·30	,,	Chelmsford (Writtle)	19·48
,,	Ullscarf.....	114·90	II.	Rochester (Abbots Court Ho.)..	19·53
,,	Wythburn.....	111·51	IV.	Chelmsford (High Street)	20·35
,,	Rosthwaite (Castle Lodge)...	104·45	,,	Maldon (Norton Hall).....	20·45

WALES.

Greatest.			Least.		
Div.		in.	Div.		in.
XI.	Llanbedr-y-Cennin(Llyndulyn)	118·51	XI.	Rosset (Trevalyn Hall)	32·04
,,	Pen-y-gwryd	108·75	,,	Rhyl (Sedgeley House)	33·24
,,	Neath (Glyncorrwg)	95·33	,,	Holywell (Bagillt)	33·80
,,	Treherbert	89·20	,,	Hawarden.....	34·24
,,	Builth (Abergwessin)	84·35	,,	Mold (Bryn Alyn)	34·36
,,	Ystalyfera (Tan-yr-allt)	81·33	,,	Prestatyn (Nant).....	34·80

SCOTLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XVIII.	Skye (Broadford).....	110·33	XVIII.	Fearn (Lower Pitkerrie) ...	18·39
,,	Ben Nevis Observatory	107·84	,,	,, (Arboll)	18·97
,,	Loch Shiel (Glenaladale) ...	94·94	XVII.	Nairn (Acharéidh)	21·13
,,	Glenquoich	94·37	,,	Drumoak (Drum Castle) ...	21·25
XVI.	Glen Gyle	81·10	,,	Forres (H.R.S.)	21·72
XV.	Ballachulish...	80·24	XVIII.	Inverness (H.R.S.)	22·08

IRELAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XX.	Killarney (Gap of Dunloe)...	101·20	XXII.	Shannon Grove [Banagher]...	28·74
,,	Dunmanway (Coolkelure) ...	81·21	XXI.	Dalkey (Bellevue Park)	29·20
XXII.	Clifden (Kylemore)	79·63	,,	Glasnevin (Botanic Garden)	29·92
XX.	Kenmare (Derreen)	72·74	,,	Dublin (Phœnix Park) ...	31·40
XXI.	Glenesmoel Lodge	64·51	,,	Killiney (Cloonevin)	32·42
XX.	Valencia Observatory	62·83	XXIII.	Antrim (The Manse)	32·61

GENERAL TABLES

OF

TOTAL RAINFALL IN 1886,

AT UPWARDS OF

2000 STATIONS

IN THE

BRITISH ISLES.

EXPLANATION OF THE ARRANGEMENT OF THE FOLLOWING GENERAL TABLES.

The divisions are the same as those adopted by the Registrars General of England and Scotland. The boundaries of these divisions are shown on the map facing p. 170 of *British Rainfall*, 1876.

The counties follow the same order as in the reports of the before-mentioned officers; but an alphabetical list of the counties is given, whereby the page or pages on which all returns from each county will be found can be at once ascertained.

The stations in each county are arranged nearly in the order of their latitude from South to North.

To facilitate finding the fall in any part of the country, the first name is almost always that of a place given in *Bradshaw*, the *British Postal Guide*, or the *Clergy Directory*; the second name is generally added to fix accurately the site of Observation; but, in a very few instances, this second name is in [ ] instead of ( ); it then shows that the nearest town is in an adjoining county. For instance, "Lowestoft (Gisleham)" means Gisleham, near Lowestoft, both being in one county, but "Geldeston [Beccles]" means Geldeston, Norfolk, near Beccles, in another county—Suffolk.

The contents of the columns are sufficiently explained by the headings, except that in the column headed "diameter," figures will occasionally be noticed of a different type from the rest of the tables, these figures indicate the length of the sides of rectangular mouthed gauges. These measurements are all in inches.

The letter D denotes that a copy of the daily record has been received, that it is perfect throughout the year, and that the printed amount is the correct total of these daily entries. The letter M indicates a monthly record, *i.e.*, that the observation is made only on the first of each month.

An asterisk * denotes that the gauge was tested before erection, and a † that it has been visited and examined since. A note of interrogation (?) implies doubt, not necessarily error. ... indicates the absence of information.

In the column of altitudes several symbols are used, their meaning is as follows:—T̄, that a series of levels has been taken from the gauge to an Ordnance bench mark; T, that the height is estimated or ascertained approximately from the same source; L, that levels have been taken from the gauge to the sea, or to some datum other than Ordnance mean sea level; B, that the altitude has been taken by the barometer; and ?, that the height is uncertain.

COUNTY INDEX TO GENERAL TABLES.

ENGLAND.

Bedford 169
Berks 166
Buckingham 167
Cambridge 170
Cheshire 186
Cornwall 177
Cumberland 197
Derby 185
Devon 175
Dorset 174
Durham 195
Essex 170
Gloucester 178
Hampshire 164
Hereford 179
Hertford 166
Huntingdon 169
Kent 161
Lancashire 187
Leicester 182
Lincoln 183
Middlesex 158
Monmouth 199
Norfolk 172
Northampton 168
Northumberland 196
Nottingham 184
Oxford 167
Rutland 183
Shropshire 180
Somerset 177
Stafford 181
Suffolk 171
Surrey 159
Sussex 163
Warwick 182
Westmoreland 198
Wiltshire 173
Worcester 181
Yorkshire 190

WALES.

Anglesea 202
Brecknock 200
Cardigan 200
Carmarthen 200
Carnarvon 202
Denbigh 201
Flint 201
Glamorgan 199
Merioneth 202
Montgomery 201
Pembroke 200
Radnor 201

ISLANDS.

Isles of Scilly 202
Alderney ....
Guernsey 202
Jersey 202
Isle of Man 202
Sark ....

SCOTLAND.

Aberdeen 209
Argyll 206
Ayr 205
Banff 209
Berwick 204
Bute 206
Caithness 211
Clackmannan 207
Cromarty 210
Dumbarton 206
Dumfries 203
Edinburgh 204
Elgin (or Moray) 209
Fife 208
Forfar 208
Haddington 204
Inverness 210
Kincardine 209
Kinross 207
Kirkcudbright 203
Lanark 205
Linlithgow 205
Nairn 210
Orkney 211
Peebles 204
Perth 208
Renfrew 205
Ross 210
Roxburgh 203
Selkirk 204
Shetland 212
Stirling 206
Sutherland 211
Wigton 203

IRELAND.

Antrim 216
Armagh 216
Carlow 214
Cavan 216
Clare 214
Cork 213
Donegal 217
Down 216
Dublin 214
Fermanagh 216
Galway 215
Kerry 213
Kildare 214
Kilkenny 214
King's County 214
Leitrim 216
Limerick 213
Londonderry 217
Longford 215
Louth 215
Mayo 215
Meath 215
Monaghan 216
Queen's County 214
Roscommon ....
Sligo 215
Tipperary 213
Tyrone 217
Waterford 213
Westmeath 215
Wexford 214
Wicklow 214

ENGLAND AND WALES.

DIVISION I.—MIDDLESEX.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MIDDLESEX.						
Sunbury (Hanworth Road)	W. B. Bryan, Esq., C.E.	8	1 0	50 ⇈	23·77	136
Teddington (Gomer House)	R. D. Blackmore, Esq..	5	0 10	26 ⇈	25·63	155
ɒ Staines	J. Gundry, Esq.....	5	1 0	51 ↑	26·58	167
,, (Knowle Green)	Miss Pellatt	5	5 2	...	26·67	146
ɒ Twickenham (High Shot House)	H. Branthwaite, Esq...	5	10 0	...	23·16	151
D Isleworth (Spring Grove)	R. W. Peake, Esq. ...	5	1 0	69 ↑	23·64	121
† ,, (Dunster Lodge)	Miss Ormerod.....	5	1 0	65 ⇈	25·13	...
,, (,, ,,) ... M	,, ,, ...	5	1 0	65 ⇈	25·20	...
Gunnersbury Station	E. Mann, Esq.	5	0 11	35	24·78	...
Ealing (Local Board Office)	C. Jones, Esq., C.E. .	5	27 0	110 ↑	24·41	151
Westminster(SpringGrdns),S.W.	Sir J. W. Bazalgette, C.E	12	65 11	95 ⇈	24·06	146
,, (,, ,,)	,, ,, ,, ...	8	66 4	95 ⇈	21·38	146
ɒ Kensington (Edith Road).....	G. von U. Searle, Esq.	5	0 10	35?	26·81	169
ɒ ,, (Holland House) ...	Mr. C. Dixon	5	6 6	68 ⇈	25·47	155
ɒ ,, (Addison Gardens) ..	G. H. M. Whish, Esq..	5	1 1	23 ↑	28·05	180
,, (Campden Hill, W.)	T. Hack, Esq., C.E. ...	8	4 10	130 ⇈	25·53	165
D London (Lansdowne Cres. W.)...	G. T. Gwilliam, Esq...	5	0 9	79 ↑	27·84	174
,, (Guildhall), E.C.	Col. Haywood, C.E. ...	8	2 6	49 ↑	23 28	150
,, (,,)	,, ,, ,, ...	8	51 0	98 ↑	19·86	150
,, (Old Street), E.C.	The Royal Meteor. Soc.	5	1 0	70 ↑	26·80	197
Perivale (Sewage Farm)	C. Jones, Esq., C.E. ...	5	1 0	56 ↑	25·18	165
London(Regent's Pk. R. Bot. Soc.)	W. Sowerby, Esq.....	8	1 0	126 ⇈	27 29	173
D† ,, (Camden Square), N.W. ...	G. J. Symons, Esq. F.R.S	8	0 8	111 ⇈	27 01	176
,, (,, ,,) .....M	,, ,, ,, ...	5	1 0	111 ⇈	27·07	...
† ,, (235, Camden Road), N.	W. B. Butler, Esq. ...	5	3 0	160 ↑	26·57	...
† ,, (,, ,, ,,)...M	,, ,, ,, ...	5	1 1	160 ↑	27·31	...

DIVISION I.—MIDDLESEX.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1886	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
MIDDLESEX—(*con.*)						
Hackney (Richmond Road), E....	J. W. Tripe, Esq. M.D.	5	7 0	65 ⊼	21·53	187
Hampstead (Roslyn House) N.W.	C. H. L. Woodd, Esq..	8	1 4	330 T	27·21	...
,, (Kidderpore Reserv.)	T. Hack, Esq., C.E. ...	8	1 6	323 ⊼	27·46	122
D ,, (Branch Hill Lodge)	B. Woodd Smith, Esq.	8	0 10	380 T	29·08	157
† ,, (Squire's Mount) ...	Rogers Field, Esq. C.E.	5	1 0	388 ⊼	27·42	174
,, (The Pryors)	,, ,, ,, ,,	5	1 0	327 ⊼	26·90	193
Holloway (Manor Road)	Miss Varty.....	5	1 2	100	26·83	...
D Stoke Newington Res., N.....	J. Francis, Esq., C.E.	9	3 3	104 T	23·46	158
Stamford Hill (Cazenove Road)..	Capt. R. Braine.....	8	1 3	89 T	22·68	...
D†Highgate Nurseries, N....	H. J. Cutbush, Esq. ...	5	1 0	410 T	26·46	180
†Child's Hill (Helenslea), N.W....	A. J. Woodhouse, Esq.	5	1 6	245 T	27·88	180
,, ,, (,,) ,, M	,, ,, ,, ...	5	1 6	245 T	26·38	...
D Upper Clapton (Warwick Road)	W. Hayward, Esq. ...	5	3 6	...	25·06	179
,, ,, ...	S. A. M. Satow, Esq...	8	1 0	88	23·10	...
* ,, ,, (The Common)..	J. Parnell, Esq.	5	1 1	98 ⊼	23·49	179
Finsbury Park	Rev. E. Healy	5	1 6	125 T	27·99	...
Crouch End (Parkside).....	F. Wood, Esq.	...	...	200	29·21	...
D†Muswell Hill	Miss Abethell.....	5	0 10	310 T	30·49	188
Finchley East (Elmhurst).....	B. C. Wainwright, Esq.	8	0 7	300 T	29·26	...
D ,, (Etchingham Park) ...	J. W. Scott, Esq.	5	0 11	295 T	29·19	187
D ,, (,, ,,) ...	,, ,, ,, ...	8	1 3	295 T	29·34	187
D Pinner Hill.....	A. Helsham-Jones, Esq.	5	3 6	410 T	26·60	169
D Uxbridge (Harefield Park)	W. F. Vernon, Esq. ...	8	1 0	296 ⊼	28·25	129
Winchmore Hill	W. T. Paulin, Esq. ...	8	1 0	...	28·47	172
D ,, ,, ...	Mr. G. Duffield	5	0 11	...	28·30	139
D Enfield (Old Park)	A. L. Ford, Esq.	5	1 9	158 T	29·66	183
D ,, (Nag's Head Lane)	J. Francis, Esq., C.E..	12	3 0	108 T	27·17	162
D ,, (Forty Hill)	T. Paulin, Esq.	8	1 0	...	27·25	170
,, (,, ,,)	,, ,, ,, ...	5	1 0	..	27·47	170
,, (,, ,,)	,, ,, ,, ...	5	5 0	...	26·92	170
D Monken Hadley [Barnet].....	F. A. Milne, Esq.	5	0 8	426 T	29·81	173

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY.						
D Haslemere	J. W. Penfold, Esq. ...	8	4 0	481 ⊼	40·19	190
,, (Grayswood Hill)	B. E. C. Chambers, Esq.	5	1 0	580 ⊼	37·36	...
Godalming (Dunsfold)	Mr. W. Underwood ...	5	2 6	166	28·36	...
Haslemere (Weycombe)	G. B. Buckton, Esq. F.R.S.	5	4 0	583 ⊼	35·85	...
Godalming (Hascombe).....	E. S. Rowcliffe, Esq. ..	10	1 6	263 T	29·50	...
D Ewhurst (Heathside).....	J. Sparkes, Esq.	5	0 9	600 ⊼	34·63	195
Godalming (Witley)	Miss F. I. Foster	5	1 0	350 ?	31·89	165
Dorking (Holmbury).....	Mr. Bayman	5	1 0	553 T	34·33	180
D ,, (Abinger Hall)	Sir T. H. Farrer, Bt....	8	2 0	320 T	31·94	179
† ,, (Holmwood)	A. Sconce, Esq.	5	1 2	320 T	33·24	...
,, (Fir Tor).....	F. Taylor, Esq.	5	0 10	280 B	31·79	...
,, (South Street).....	H. Fielder, Esq.	...	...	...	33·36	...

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
SURREY—(*con.*)						
Betchworth (Brockham Vic.) ...	Rev. A. Cheales	5	1 0	158 ↑	31·58	159
Guildford (Guildown)	Late Miss J. P. Hadden	5	0 11	220 T	29·51	188
,, (,,)	J. Rand Capron, Esq...	5	1 1	249 ↑	27·84	175
Farnham (The Bourne Vicarage)	Rev. T. W. Sidebotham	5	1 0	308 ↑	29·55	173
Reigate (Woodhatch Lodge) ...	T. B. Haywood, Esq...	5	1 0	270 T	31·23	175
,, (Ringley Mead)	R. L. Hesketh, Esq. ...	5	1 1	345 T	32·78	153
Dorking (The Denbies)	Mr. J. Beesley	5	1 0	610 T	33·81	...
Buckland (Shagbrook)	Miss Carr Saunders ...	5	1 0	240	28·63	151
†Redhill (Oxford Road)	W. H. Tyndall, Esq....	8	1 0	300 ↑	34·51	...
Reigate (Dovers Lodge)	R. W. Clutton, Esq....	5	1 0	192	31·54	145
,, (Holmfels)	Miss Baker	5	1 0	264 T	30·96	175
,, (Springfield).....	T. P. Newman, Esq...	5	1 0	300 ↑	32·81	187
,, (Castle Grounds)	Mr. G. Crutchfield.....	5	1 0	325 ↑	32·05	167
,, (Doods).....	G. E. Pym, Esq.....	5	1 6	365 T	32·60	173
† ,, (Wray Park)	A. Rosling, Esq.....	5	1 0	330 T	34·50	165
,, (Nutwood)	H. E. Gurney, Esq. ...	5	1 4	440 T	34·04	163
Nutfield Priory	The late J. Fielden, Esq.	8	1 2	468 ↑	31·27	190
Reigate Hill (Lovelands).....	R. Binns, Esq.	5	1 3	600 ?	32·53	202
,, ,, ...	Baldwin Latham Esq CE	5	1 0	687 ↑	34·04	213
Guildford (Wern)	Major Mathew	5	4 0	170	25·56	141
Dorking (High Ashurst)	The Hon. H. D. Ryder	5	12 0	550	31·14	169
Horsley Towers	The Earl of Lovelace...	6	1 0	300	31·69	...
Titsey (Botley Hill)	Baldwin Latham Esq CE	5	1 0	870 ↑	42·56	189
Chipstead (Parson's Green)	,, ,, ,, ...	5	1 0	506 ↑	36·23	163
Caterham Valley (Birchwood Ho.)	S. T. Rutley, Esq.....	5	1 0	471 ↑	30·63	161
Pirbright Vicarage	Rev. F. Owston	5	1 0	151 ↑	26·04	188
†Chelsham (Henley)	Baldwin Latham Esq CE	5	1 0	607 ↑	32·89	184
Woking (Horsell Vic.)	Rev. J. Back	5	1 0	141 ↑	24·06	173
Cobham (Leigh Hill House) ...	J. Macaulay, Esq.....	5	2 4	79	23·65	165
Caterham Junction (Tudor Cot.)	Baldwin Latham Esq CE	5	1 0	216 ↑	30·66	141
Chobham (Ottershaw)	Admiral Otter.....	5	1 0	200	24·10	168
Weybridge Heath (Netherfield)..	C. H. Parkes, Esq. ...	5	1 0	160	25·01	159
,, ,, (Oakfield) ...	H. Yool, Esq.	5	1 0	107 ↑	25·66	173
,, (Church Street) ...M	,, ,, ,, ...	5	1 0	55 ↑	25·39	...
Walton-on-Thames (Hersham)..	The late G. Dines, Esq.	8	4 0	55 ↑	24·34	...
Addington	Baldwin Latham Esq CE	5	1 0	268 ↑	27·07	148
†Sutton (Mulgrave Road)	W. Goode, Esq.....	5	5 6	230 ↑	28·25	166
,, (Grange Road)	W. Thurtell, Esq.....	5	...	230	27·29	166
Croydon (Waddon House)	P. Crowley, Esq.	5	1 0	156 T	26·47	196
,, (Coombe Lane)	Baldwin Latham Esq CE	5	1 0	213 ↑	29·80	181
,, (Katharine Street)	G. Corden, Esq.....	5	1 0	195	25·24	172
† ,, (Nantwich House)	Baldwin Latham Esq CE	8	4 0	259 ↑	25·95	175
,, (,, ,,)	,, ,, ,, ...	8	1 0	253 ↑	26·96	180
,, (Brimstone Scw. Works)	,, ,, ,, ...	5	1 0	130 ↑	25·71	161
*† ,, (Addiscombe)	E. Mawley, Esq	8	0 9	202 ↑	27·33	190
†Beddington.....	S. Rostron, Esq.....	5	1 0	102 T	25·75	170
Chertsey (Long Cross)	C. H. Berners, Esq. ...	8	1 9	168 T	29·09	170
,, (Burley Orchard) ...	W. Herring, Esq.	5	1 0	47 T	24·55	...

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
SURREY—(*con.*)						
Surbiton (Seething Wells)	R. Hack, Esq., C.E. ...	10	0 6	25	22·02	170
D East Molesey (Palace Road).....	Mrs. Jenkyns.....	8	6 5	37	23·82	164
D Wimbledon.....	T. Devas, Esq.	12	3 0	157 T	26·12	171
D ,, (Sewage Works).....	BaldwinLatham EsqCE	5	1 0	58 ⩚	24·60	163
D† West Norwood	W. Marriott, Esq.....	8	1 0	185 T	26·16	182
D Virginia Water (Northlands) ...	M. Ashby, Esq.....	5	1 0	199 T	27·67	164
Egham (Cooper's Hill)	The Meteor. Council...	8	1 1	280	27·72	179
D Richmond (Ormond Lodge)	J. F. Billett, Esq.	5	0 9	51	26·87	180
D Kew Observatory	The Kew Committee ...	11	1 9	19 ⩚	25·44	181
Brixton (Acre Lane)	The Meteor. Council ...	8	1 0	77 T	26·37	172
D Battersea Creek	Sir J. W. Bazalgette, CE	8	27 2	41 ⩚	26·49	161
D Vauxhall Cross	,, ,, ,, ,,	8	30 9	48 ⩚	22·11	154
KENT.						
Dungeness	The Meteor. Council ...	...	. .	...	30·32	174
D Hawkhurst (Sandhurst Rectory)	Rev. G. Ridout	5	1 3	208 ⩚	28·90	143
D ,, (,, ,,)	,, ,, ...	5	1 3	206 ⩚	30·77	143
D Dymchurch (New Hall)	H. D. Good, Esq., C.E.	8	1 0	12 ⩚	28·62	182
Tenterden (Summerhill)	Rev. A. Wilkin.....	12	1 0	149 ⩚	26·18	147
Benenden (East End)	J. Ellis Mace, Esq.....	8	1 5	193 ⩚	30·44	...
,, ...*Snowdon*	,, ,, ,,	5	1 0	150 T	28·44	...
D Tenterden	,, ,, ,,	8	1 5	190 ⩚	30·09	200
,, ... *Snowdon*	,, ,, ,,	8	1 5	190 ⩚	29·37	...
,, (Ashbourne)	A. Pinyon, Esq.....	5	2 8	45 T	28·85	...
D† Hythe	H. B. Mackeson, Esq...	8	0 6	12 T	30·91	176
,, (Hillhurst Farm)	G. F. Deedes, Esq. ...	5	1 10	...	34·27	195
Cranbrook (Swattenden)	R. Appach, Esq.	8	1 2	350 T	29·14	173
† ,, (Hartley)	G. Pile, Esq.	5	4 0	405 T	31·22	201
Hythe (Paddlesworth)	Mr. R. Dixon	8	1 0	608 ⩚	40·24	...
D Gowdhurst Vicarage.....	Rev. J. S. Clarke	5	1 1	410 T	23·51	169
D† Dover (Pencester Street)	H. J. Poulter, Esq. ...	5	2 0	32	30·36	174
D ,, (Kearsney Abbey)	Mr. C. Maxted	5	0 10	94 ⩚	35·34	181
D Acrise	G. C. Woollett, Esq. ...	8	1 0	504 ⩚	38·45	215
,, Park.....	F. A. Mackinnon, Esq.	8	0 6	485	34·29	...
D Tunbridge Wells (Camden Park)	J. Weston, Esq.	5	0 9	424 ⩚	31·51	200
D Ashford (Bethersden)	W. H. Mold, Esq.....	5	3 0	112 ⩚	28·38	176
D ,, (Beavor Green)	T. Nickalls, Esq.	5	1 0	155 T	31·02	199
D Tunbridge Wells (Etherton Hill)	E. W. Winton, Esq....	5	1 5	276 ⩚	31·15	151
D ,, ,, (Pembury) ...	W. Brentnall, Esq. C.E.	8	1 8	181 ⩚	28·36	157
Tunbridge (Penshurst Place) ...	The Hon. H. Sidney...	5	0 11	115	27·73	...
D ,, (St. Mary's).....	W. C. Punnett, Esq....	5	1 6	96 ⩚	31·70	160
,, (,, ,,) *Snowdon*	,, ,, ,, ...	5	1 0	96 ⩚	31·03	160
,, (,, ,,) .....M	,, ,, ,, ...	8	4 0	98 ⩚	30·80	...
Ashford (Eastwell Rectory).....	Rev. G. E. Gwynne ...	5	0 11	270 T	30·31	...
D ,, (Westwell)	Rev. H. H. D'Ombrain	5	1 0	293 ⩚	30·26	159
D Lower Walmer	Mr. G. L. Hall	5	1 4	20	28·79	160
D† Maidstone (Hunton Court)	Mr. P. Goddard	8	0 6	80 T	26·11	158
D ,, (Lower Tovil)	L. Green, Esq.	5	1 0	30	25·50	163

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
KENT—(*con.*)						
Maidstone (Mote Park)	Mr. C. Davies	10	3 6	95 ?	26·21	157
,,	C. A. Case, Esq.	5	1 0	170 ?	28·30	177
,, (Hospital)	M. A. Adams, Esq.	5	...	200	?24·04	...
,, (Debtling)	R. Cooke, Esq.	5	1 2	330 T	27·12	183
Charing (Otterden)	Rev. W. A. Paxton	5	1 0	507 ⅄	28·41	...
Sheldwich	Rev. B. S. Malden	5	1 0	250 T	30·64	169
D† Selling (Harefield)	E. Neame, Esq.	5	2 6	217 T	31·87	201
D Canterbury (Burgate Street)	B. Rigden, Esq.	5	9 6	58 ⅄	28·91	152
,, (Harbledown)	Miss Metcalfe	5	1 6	165	27·13	155
†Seven Oaks (River Hill)	J. T. Rogers, Esq.	8	4 0	535 ⅄	28·76	...
D ,, (Clare Bank)	J. M. Clabon, Esq	5	4 0	540 T	31·83	189
D† ,, (Riverhead Vic.)	Rev. J. M. B. Murdoch	5	0 6	300 T	32·34	...
D Sittingbourne (Sharsted Court)	Faunce de Laune, Esq.	5	1 0	276	29·46	172
D Bicknor Rectory	Rev. W. G. Waterman	5	1 0	560 ?	26·90	155
D Wrotham (The Elms)	W. H. Cooper, Esq.	5	1 0	418 ⅄	26·98	180
Ospringe (Lorenden)	W. C. Stunt, Esq.	5	1 2	180 ?	27·71	134
D Canterbury (Old Tree, Hoath)	The late G Rammell, Esq	8	2 0	113 ⅄	22·71	129
D Sittingbourne (Hartlip Place)	Baldwin Latham Esq CE	5	1 0	...	25·25	166
D Keston Tower	G. Buchanan, Esq., C.E.	8	0 9	351 T	29·19	156
†Ramsgate (The Vale)	M. Jackson, Esq.	5	1 0	90 T	25·90	162
Birchington	E. S. Lendon, Esq	5	1 0	70	25·09	147
D Herne Bay	R. M. Mercer, Esq.	5	...	...	23·55	...
D Reculver (Brook)	A. Collard, Esq.	5	6 3	40	22·20	156
D Hayes (Layham's Farm)	W. Ashcroft, Esq.	5	1 0	500	29·58	148
D ,, Common	A. Hill, Esq.	5	1 0	289 T	29·33	182
D ,, ,, (The Warren)	Miss Akers	5	1 0	296	27·76	190
Chatham	The Meteor. Council	...	1 3	137	20·59	141
D Rochester (Knights Place)	J. Pye, Esq.	5	2 6	320	24·16	183
D Margate (Renfrew Villa)	T. Twyman, Esq.	5	1 0	50 T	25·30	167
D ,, (Apsley House)	J. Stokes, Esq.	5	1 0	84 L	26·74	178
Sheppey (Greenborough)	R. M. Mercer, Esq.	5	2 0	...	24·94	...
,, (Leysdown)	A. J. Farbrother, Esq.	5	1 6	50	?28·60	139
D Frindsbury (Manor Farm)	Mr. F. Baker	5	1 0	100	21·20	140
D Beckenham (West Wickham)	Baldwin Latham Esq CE	5	1 0	230 ⅄	26·01	162
Bickley (Highfield)	J. Batten, Esq.	5	1 2	285	28·38	...
Chislehurst (Hillside)	Col. Silver	5	1 5	...	25·59	...
D† Beckenham (Foxgrove)	Percy Bicknell, Esq.	5	0 6	142 ⅄	24·80	169
D† ,, (,,)	,, ,, ,,	5	4 0	145 ⅄	23·90	162
D Rochester (Abbot's Court, Hoo.)	Warwick Stunt, Esq.	5	1 0	12	19·53	160
D Forest Hill (Newfield House)	E. F. Behrens, Esq.	...	...	...	?18·55	111
D Gravesend (Park Place)	G. M. Walker, Esq.	5	1 0	24?	18·00	134
D Rochester (Cooling Castle)	W. Wood, Esq.	5	4 10	10	19·57	129
D ,, (Hoo St. Mary)	H. Pye, Junr., Esq.	5	5 6	146 T	18·44	150
D Lee (Blessington Road)	J. Grant, Esq., C.E.	10	4 9	49 ⅄	27·02	158
D Shooters Hill	Capt. Sherrard, R.E.	5	1 0	352	25·26	191
Blackheath	J. Glaisher, Esq., F.R.S.	8	0 5	150	23·82	...
,, Park (Elmsdale)	C. Lethbridge, Esq.	5	0 11	90	23·04	155
Greenwich (Royal Observatory)	W. H. Christie, Esq. F.R.S	8	0 5	155 T	24·21	163

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which '01 or more fell.
			ft. in.	feet.	inches.	
KENT—(*con.*)						
D Deptford (Pumping Station).....	Sir J. W. Bazalgette, CE	10	1 3	18 ⅄	28·52	148
D Erith (Crossness)	,, ,, ,, ...	14	1 0	16 ⅄	22·02	156
D ,, (,,)	,, ,, ,, ...	14	1 0	24 ⅄	22·97	156
D ,, (,,)	,, ,, ,, ...	11	1 0	6 ⅄	25·24	156
WEST SUSSEX.						
Bognor (Lidsey Lodge).....	H. Neale, Esq.	8	1 2	...	32·30	172
D Littlehampton (Surrey House)...	G. Neame, Esq.	5	1 8	20 T	34·41	142
D† Worthing (Bedford Row).....	W. J. Harris, Esq. ...	8	1 0	18 ⅄	31·89	164
,, (,, ,,) .....M	,, ,, ,, ...	5	1 0	18 ⅄	32·19	...
D Arundel (Yapton)	W. A. Hounsom, Esq..	5	1 0	24 ⅄	35·60	181
,, (,, Drove Farm).	,, ,, ,, ...	5	1 0	14 T	33·76	175
Chichester (WestgateMeadow)...	Dr. Tyacke.....	8	0 6	40	33·50	143
D Arundel (Clapham Rectory) ...	Rev. A. H. S. Barwell	5	1 0	150	36·60	186
,, (Patching)	J. Drewitt, Esq.....	5	1 0	180	36·77	181
D ,, (The Parade)	R. Holmes, Esq.	8	3 1	75	36·46	143
,, (Dale Park)	Mr. E. Sandford	5	0 11	320	39·86	140
D† Steyning.....	Col. Ingram	5	1 0	80 T	38·11	138
Chichester (Eartham House) ...	Sir P. Milbanke, Bt....	3	4 6	230 ⅄	34·62	...
,, (West Dean)	Mr. G. Broomfield.....	5	1 6	190 T	45·36	175
,, (Singleton Rectory)...	Rev. F. A. Bowles.....	5	1 0	240	42·55	...
† ,, (Chilgrove)	J. W. Woods, Esq. ...	5	0 6	284 T	38·04	...
Compton [Petersfield]	Rev. H. M. Langdale...	5	1 0	255 ⅄	39 76	189
D Midhurst (Cocking)	Rev. R. Drummond Ash	8	2 6	...	40·36	160
†Petworth Rectory	Rev. C. Holland.....	5	4 0	180 ⅄	38·09	147
Midhurst (Lynch Farm)	G. Eames, Esq.	5	0 6	160 T	39·90	...
†Horsham (Leonardslee)	Mr. Ford.....	5	1 6	273 T	32·50	...
D ,, (Rusper)	A. F. Parbury, Esq. ...	5	1 0	372 ⅄	32·78	156
,, (,,)	,, ,, ,, ...	5	1 2	370 ⅄	30·68	...
EAST SUSSEX.						
Beachy Head ..... M	Miss W. L. Hall	5	1 0	515 T	27·49	...
,, ,, ...	,, ,, ,, ...	5	1 0	495 T	28·61	...
Eastbourne(Wilmington Square)	R. Sheward, Esq.	5	1 0	5	30·75	...
,, (Osborne House).....	Miss W. L. Hall	5	4 0	15 B	33·97	168
† ,, (The Gore)	,, ,, ,, ...	5	1 0	85 T	32·65	167
† ,, (Cemetery)	,, ,, ,, ...	5	4 0	160 ⅄	35·03	169
†Brighton (Kemptown)	Mr. A. Wyatt.....	5	1 0	82 T	34·17	166
† ,, (Old Steine)	Dr. Taaffe	5	1 0	35	34·99	167
† ,, (Blatchington Road) ...	Mr. J. Park	8	0 6	55 T	34·29	...
,, (W.W. GoldstoneBotm.)	F. W. Hollands, Esq..	5	0 10	140 ⅄	34·09	...
D† ,, (,, Lewes Road) ...	Mr. W. Insell	5	3 8	105 T	36·80	180
St. Leonard's (London Road) ...	H. Colborne, Esq.....	5	1 0	166 T	32·40	197
D ,, (The Grove).....	W. B. Young, Esq. ...	5	1 1	110 T	34·02	160
D† Hastings (The Hollies)	A. H. Wood, Esq. C.E.	5	1 0	100 ⅄	32·75	207
,, ...	The Meteor. Council ...	...	...	...	32 41	198
D ,, (Buckshole).....	W. Andrews, Esq.....	8	0 8	106	32·90	173

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
EAST SUSSEX—(*con.*)						
D Hailsham	Rev. F. Clyde Harvey..	5	1 0	105	35·43	...
D†Falmer	R. R. Verrall, Esq. ...	5	3 0	312 ⅄	38·23	137
D Lewes (Iford)	A. Hillman, Esq.	5	1 0	33 T	37·24	191
D† ,, (Glynde Place)	Mr. W. McLeod	5	4 6	49 T	36·47	150
D ,, (Bedford Lodge)	Mrs. Kemp.....	5	1 0	100 T	31·99	152
,, (Castle Place)	J. G. Braden, Esq. ...	5	0 11	100 T	35·66	149
D ,, (Southmalling)	Miss M. H. Rickman...	8	0 5	40 ⅄	33·32	187
†Hastings (HighBeechHollington)	Col. Lewis	5	1 0	320 T	29·62	168
,, (The Firs, Ore)	C. M. Murray, Esq. ...	8	1 0	408 B	32·83	...
D Winchelsea (The Friars)	Miss Stileman..	5	1 2	115 T	25·05	148
Battle (Whatlington)	F. P. Gripper, Esq. ...	5	1 3	...	33·92	156
D Burgess Hill (Prescott)	W. T. Reynolds, Esq..	5	1 0	...	31·28	154
Wivelsfield (Lyoth)	T. P. Descow, Esq. ..	5	1 1	...	34·88	...
D Newick (Ketches)	Capt.G.RuckKeene,RN	8	0 7	192 T	31·35	145
D Uckfield	Miss L. Day	8	0 8	200 B	32·86	206
D†Maresfield (Forest Lodge)	Capt. W. Noble	8	1 2	247 ⅄	36·65	208
D ,, (Fletching)	Dr. Treutler	5	1 0	140	36·02	166
,, (Sheffield Park)	The Earl of Sheffield...	...	...	...	34·67	178
D Cuckfield (Borde Hill House)	Mr. R. Inglis.....	5	3 0	270 B	35·72	167
D†Mayfield Vicarage	Rev. H. T. M. Kirby...	8	0 8	425 T	32·95	163
D†Crowborough (The Observatory).	C. L. Prince, Esq.....	8	0 8	777 ⅄	37·17	184
D Balcombe Place	B. A. Hankey, Esq. ...	8	1 3	289 T	35·96	186
Ticehurst	Mr. W. Preece	8	4 9	423 ⅄	28·90	...
D Wadhurst (Lower CousleyWood)	F. Wilkin, Esq.....	5	1 0	416 ⅄	29·77	181
Lamberhurst (Scotney Castle)	E. Hussey, Esq.....	5	4 3	202 T	26·27	...
D Frant (Myrtle Villa)	Miss Appellina Scott...	5	1 0	500 T	34·63	184
,, (Eridge Castle)	Mr. J. Rust.....	6	2 0	400	37·24	157
Withyham (Leyswood)	Mr. T. Moorhouse	8	1 4	420	37·20	...
Forest Row (Ashdown Cottage)..	H. J. Slack, Esq.	8	3 6	386 B	34·72	...
Worth Rectory	Rev. G. W. Banks ...	5	4 6	309 ⅄	35·59	173
East Grinstead	W. V. K. Stenning, Esq.	5	1 3	356 ⅄	36·15	172
,, ,, (The Hermitage)	H. Padwick, Esq.	8	0 10	350 T	36·56	130
HAMPSHIRE.						
ISLE OF WIGHT.						
Ventnor (Consumption Hospital)	Mr. H. Sagar	5	1 0	75 T	36·61	189
Shanklin (Bondi)	A. Parbury, Esq.	5	1 3	100	42·12	131
D Sandown (Belgrave House)*new g.*	W. E. Green, Esq	5	1 0	105	38·17	162
Brading	Rev. E. Summers	5	1 6	...	29·87	...
Newport (Lugley House)	Rev. E. W. Watts ...	5	1 0	...	38·07	202
D Yarmouth (The Towers)	AdSirEOmmanneyFRS	5	1 0	15	43·51	169
Ryde (Thornbrough)	Col. Clarke.....	5	1 0	143 T	36·42	...
D ,, (Town Hall)	F. Newman, Esq.	8	1 0	83 ⅄	33·65	189
D†Osborne (Newbarn Cottage)	J. R. Mann, Esq.	8	0 8	172 ⅄	32·21	174
D West Cowes (Holmwood)	C. T. Maw, Esq.....	8	1 0	40	33·50	191
Hurst Castle	The Meteor. Council ...	8	0 11	9	34·25	211
Bournemouth (Tregew)	AdlSirB.J.SulivanKCB	5	1 0	134	37·40	169

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell
	HAMPSHIRE—(*con.*)							
	Christchurch (South Bourne) ...	Dr. Compton	5	1	0	91	33·59	...
D	,, (Mudeford)	F. H. D. Eyre, Esq. ...	5	0	3	15 L	33·83	205
D	,, School	C. I. Evans, Esq.	6	4	6	15 T	37·17	208
D	,, (Kenilworth)	J. H. Bridgford, Esq. .	5	1	2	100?	33·56	176
	Portsmouth.....	TheRoy.Meteor.Society	5	1	0	20	32·59	...
D	,, (Closewood, Cosham)	O. Philpott, Esq.	5	0	9	125 T	32·61	167
	Havant (Farlington).....	H. R. Smith, Esq., C.E.	5	1	0	77	28·48	182
	,, ...	,, ,, ,, ...	5	1	0	25	29·13	144
D	Emsworth (Redlands)	F. Jacomb Hood, Esq.	5	1	0	90 T	31·91	198
	Southampton (Cadland)	J. Laurie, Esq.	8	4	6	52 T	36·90	208
D	,, (Netley)	ProfF.deChaumontFRS	8	0	5	37 T	33·66	181
	,, (Totton)	A. Spooner, Esq.	5	1	1	10	34·74	...
	,, (Ordnance Surv. Off.)	Col Sir C. W. Wilson, R.E	5	1	0	79 T	36·95	181
	Horndean (St. Catherines)	Miss Barnes	8	1	7	417 T	36·82	212
	Idsworth House.....	Mr. N. F. Fuller	5	1	0	300	39·05	...
D	Southampton (Westend)	C. Purrott, Esq.	5	1	6	244 T	36·27	183
D*	,, (Highfield) *Snowdon*	Rev. H. Garrett.....	5	1	0	130 T	35·82	191
	,, (,,) .....M	,, ,, ,, ...	5	1	0	130 T	36·46	...
D†	,, (Red Lodge) *new g.*	R. C. Hankinson, Esq..	5	0	6	206 T	34·88	175
	,, (,, ,,)	,, ,, ,, ...	5	4	0	200 T	40·16	...
D	Fordingbridge (Oaklands)	T. Westlake, Esq.....	8	1	0	135 T	37·83	173
	Bishops Waltham (Swanmore House)	W. H. Myers, Esq.....	8	1	0	390 T	34·08	141
	Fordingbridge (Wood Green) ...	H. Hinxman, Esq.....	5	1	2	140 T	33·93	...
	Petersfield (Liss Place)	F. Coryton, Esq.....	7	0	7	250 T	37·06	...
D	Alresford (Cheriton Rectory) ...	Rev. A. Orr	5	2	6	245	34·71	181
D	,, (Ropley).....	Rev. T. Woodhouse ...	5	1	2	372 T	35·81	172
D	,, (Ovington).....	Rev. W. H. B. Stocker	5	5	1	225 T	33·50	188
	,, (Arle-Bury)	Mrs. Wood	5	1	6	238 T	35·32	140
D	Alton (East Tisted Rectory).....	Rev. F. Howlett	5	1	1	420 T	35·41	176
	,, (The Wakes, Selborne) ...	Rev. W. C. Parr	5	5	3	400	33·23	135
D	Winchester (Harestock)	Col. Knight	5	1	0	302 T	35·09	181
D	Alresford (Swarraton Rectory)...	Rev. W. L. W. Eyre...	5	1	0	310 T	33·94	171
	Alton (Thedden Grange)	J. G. Wood, Esq.	8	1	3	600 T	35·78	...
D†	,, (Ashdell).....	F. Crowley, Esq.	8	3	6	433 T	33·75	172
	,, (Eagles Nest)	,, ,, ...	5	52	4	505	19·51	...
	Micheldever (Northbrook)	J. A. Caird, Esq.	5	1	1	270 T	38·10	...
D	Whitchurch (Long Parish)	C. Durnford, Esq.....	...	...		...	32·70	198
	,, (North Litchfield)	T. W. Styring, Esq....	5	0	10	...	32·34	146
	Andover (The Knoll)	G. H. Westbury, Esq..	6	0	10	196 T	34·03	197
	Tedworth House [Ludgershall]..	Mr. G. Inglefield	8	1	8	357 T	35·87	188
D	Crondall (Warren Corner)	G. Wilkin, Esq.....	5	1	3	575 T	31·65	161
D	Aldershot	D. T. Livesey, Esq. ...	5	1	0	250 T	27·73	158
D	Odiham Priory	Rt. Hon. G. S. Booth, M.P	5	4	4	...	30·59	146
D	Basingstoke (Chapel Hill).....	G. Stephens, Esq.	5	1	0	328 T	32·85	190
	†Rotherwick (Tylney Hall)	C. E. Harris, Esq.....	5	0	8	330 T	27·96	...
D	Farnborough Grange	W. Sherwin, Esq.	...	...		...	28·62	135
D	Fleet (Claremont House)	Miss L. Pasley	8	2	0	280	33·23	184
D†	Basingstoke (Sherborne St. John).	Rev. D. W. Chute.....	5	1	3	267 T	31·59	190

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
HAMPSHIRE—(*con.*)						
Kingsclere (Ramsdale)	Miss A. F. Fuller	5	1 0	341 ⅄	32·05	172
Hartley Grange	W. Walkinshaw, Esq.	5	1 0	220 ⅄	27·86	...
,, Wespall	Rev. J. C. Keate	8	0 9	233 ⅄	26·82	...
D Blackwater (Hurstleigh)	The late Miss Gibson	5	1 0	220 T	29·54	198
D†Strathfield Turgiss	Rev. C. H. Griffith	5	3 0	200 ⅄	27·24	164
†Strathfieldsaye	Mr. J. Bell	8	1 4	160 T	26·49	...
†Heckfield (Park Corner)	J. Martineau, Esq.	5	1 3	258 T	26·85	136
,, Place	Mr. W. Wildsmith	8	1 0	262 T	26·91	160
BERKS.						
Newbury (Greenham)	Capt. J. Ward, R.N.	5	1 0	260 L	30·03	187
,, (Donnington Sq.)	W. J. Cowper, Esq.	5	3 6	...	31·29	202
D Wokingham (Wellington Coll.)	S. A. Saunder, Esq.	5	1 0	283 ⅄	28·24	190
Hungerford (Denford Park)	G. C. Cherry, Esq.	5	1 2	430 T	33·55	190
Reading (Englefield)	R. Benyon, Esq.	5	1 1	...	32·55	133
D† ,, (Russell Street)	Dr. Workman	5	2 0	154 ⅄	27·93	169
D ,, (Portland Place)	C. N. Pearson, Esq.	27	2 6	122	32·74	164
,, (East Thorpe)	A. Palmer, Esq.	5	3 0	157	27·66	149
D Newbury (Welford Park)	Mr. C. Ross	5	1 0	335 ⅄	33·81	185
,, (,, ,,)	,, ,,	5	1 0	341 T	33·77	185
D Yattendon	A. Waterhouse, Esq.	5	1 0	445	30·21	189
Lambourne (The Laburnums)	R. C. Mawley, Esq.	5	0 9	415 T	34·59	188
D Maidenhead (Lowood)	Major-Gen. Davies	8	1 0	...	29·13	161
D ,, (Cookham Vic.)	Rev. R. W. Rogers	5	1 3	90 T	27·95	168
Shrivenham (Ashbury Vic.)	Rev. H. Miller	5	1 0	479 ⅄	29·42	...
D Wantage (Letcombe Regis)	S. W. Silver, Esq.	5	1 0	...	36·00	186
Wallingford Castle	J. Kirby Hedges, Esq.	5	0 9	175 ⅄	26·79	142
Little Wittenham Rectory	Rev. Percy Burd	5	1 0	187 T	28·05	152
D†Long Wittenham Vicarage	Capt. Clutterbuck	12	1 6	165 ⅄	31·31	153
,, ,, (Lovegrove's Cott.)	Rev. F. C. Clutterbuck	5	1 0	170 ⅄	32·50	152
Faringdon (The Elms)	W. Dundas, Esq.	5	1 0	340 T	34·36	181

DIVISION III.—SOUTH MIDLAND COUNTIES.

HERTS.						
D Southgate (The Lawns)	G. A. Church, Esq.	5	0 6	240 T	29·47	176
Rickmansworth (Moor Park)	Lord Ebury	5	2 0	340	32·77	184
,,	W. B. Butler, Esq.	5	1 0	...	28·84	...
D†Watford (Wansford House)	J. Hopkinson, Esq.	5	1 0	224 ⅄	29·91	187
,, (Watford House)	Dr. Brett	5	1 3	240 T	26·77	...
D† ,, (Oaklands)	E. Harrison, Esq.	5	5 6	273 T	29·09	172
Barnet (Gas Works)	*Registrar Gen. Ret.*	...	...	212	27·41	...
D Cheshunt Old Nurseries	Messrs. Paul & Son	5	1 0	92 T	26·35	144
,, College	Rev. Dr. Reynolds	5	1 1	87	25·72	...
D Broxbourne (Stafford House)	G. J. Newbery, Esq.	5	1 0	118 T	26·85	203
†St. Albans (Gorhambury)	Mr. J. Thompson	6	2 6	425	27·73	144
D Hemel Hempstead (Nash Mills)	Messrs. J Dickinson & Co.	12	3 9	237 T	29·11	156

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	HERTS—(*con.*)						
D	GreatBerkhampstead (Rosebank)	E. Mawley, Esq.	8	1 0	401 ⅄	29·09	171
D	,, ,, (Gt.Gaddesden)	Rev. W. TyrwhittDrake	8	1 0	426 ⅄	27·92	175
	Hertford (Bayfordbury)	W. C. Baker, Esq.....	8	0 8	250	26·26	171
D	,, ...	J. Woodhouse, Esq. ...	8	1 5	...	26·77	...
D	Tring Vicarage	Rev. W. Quennell	5	1 0	442 T	32·01	175
D	,, (Cowroast)	H. Thomas, Esq., C.E..	10	4 2	345 L	30·90	143
	Harpenden (Rothamstead)	Messrs. Lawes & Gilbert	5	0 9	420 T	27·71	180
	,, (,,)	,, ,, ,, ...	8	0 9	420 T	27·29	176
D	,, (,,)	,, ,, ,, ...	72x87	0 9	420 T	29·14	200
D	Ware (Red House).....	J. Francis, Esq., C.E..	12	3 0	114 T	24·22	146
D	,, (Fanham's Hall)	Miss Joyce Croft	8	1 0	253 T	25·59	173
D	Welwyn Rectory	Rev. C. L. Wingfield...	5	0 4	228 T	27·76	175
	,, (Danesbury)	Capt. Blake	5	0 9	405 B	32·47	148
D	,, (Datchworth Rectory)..	Rev. J. Wardale	5	1 0	386 T	26·72	190
D	Ware (Much Hadham)	T. W. Mott, Esq.	5	1 0	222 B	26·47	162
D	Kensworth [Dunstable]	Miss Jones	5	1 5	630 B	28·87	152
	Stevenage (Knebworth Rectory).	Rev. F. G. Jenyns.....	5	1 0	391 ⅄	29·09	185
D	Bennington Lodge.....	Rev. Dr. Parker.....	5	1 0	408 ⅄	28·24	189
	Stevenage (Orchard Court)	E. Bailey Denton, Esq.	8	2 9	317	29·24	178
D†	Hitchin	W. Lucas, Esq.	5	2 1	238 ⅄	26·60	179
	,, (High Down)	J. Pollard, Esq.	5	1 1	422 ⅄	26·27	166
D	Buntingford (ThrockingRectory)	Rev. C. W. Harvey ...	5	1 0	484 T	24·85	165
	Stevenage (Weston Manor)	M. R. Pryor, Esq.	5	0 7	480 T	28·76	166
D	Baldock (Toggs Clothall)	BaldwinLatham, EsqCE	5	1 0	422 ⅄	26·16	169
D	Royston (Therfield Rectory).....	Rev. J. G. Hale	5	4 3	500 ?	26·52	154
D†	,, ...	H. Wortham, Esq.....	8	0 6	269 ⅄	25·12	156
	BUCKINGHAMSHIRE.						
D	Slough (Langley)	R. H. Major, Esq.....	8	0 10	85 T	26·29	168
	,, (,, Field) .. ..M	,, ,, ,, ...	5	0 10	85 T	25·99	...
D	,, (Upton Park)	G. Bentley, Esq.	5	3 0	94 ⅄	28·46	177
D	Burnham	G. J. Williams, Esq....	5	3 0	182	25·29	120
D	Cliveden	Mr. J. Ellam	8	0 6	...	29·94	182
	Greenlands[Henley-on-Thames].	Rt Hn. W. H. Smith M.P.	8	1 3	116	28·18	122
	High Wycombe	H. S. Wheeler, Esq. ...	8	0 9	253 ⅄	27·06	...
D	,, ,, ...	BaldwinLatham EsqCE	5	1 0	...	33·66	143
	Aylesbury (Serena Terrace)	J. Copcutt, Esq.....	12	1 0	280 T	30·10	...
D†	Winslow (Addington Manor) ...	E. Hubbard, Esq., M.P.	8	1 0	309 ⅄	33·14	196
D†	Buckingham (Adstock).....	J. E. S. Weston, Esq...	5	0 9	350 T	32·34	188
D	Stony Stratford (Thornton)	Mr. W. Sturdy	5	1 6	...	32·27	152
	Woburn Sands (Sandymount)...	C. P. Stuart, Esq.....	5	1 1	...	31·28	178
D	Newport Pagnell	R. Littleboy, Esq.....	5	2 0	200 T	28·06	165
	Olney (Filgrave Rectory).....	Rev. J. Tarver	8	0 8	285	29·51	...
	OXFORD.						
	Whitchurch Rectory.....	Rev. J. Slatter	10	1 0	150 ⅄	31·18	155
	Henley-on-Thames (Greys)	Rev. N. Pinder	5	1 8	370 T	29·20	...
D	,, ,, (Assenton) ...	Mr. J. Ratty	5	1 0	281	34·49	174

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	OXFORD—(*con.*)						
D	Dorchester ...	Col. Blunt ...	5	2 0	...	27·30	148
D	Watlington (Pyrton)	Cecil Hamersley, Esq..	5	1 0	351	30·23	167
	Thame (Aston Rowant)	T. Taylor, Esq. ...	8	1 0	395 B	32·62	...
D	Oxford (Toot Baldon Vic.)	Rev. J. C. Ross ...	5	1 0	265	28·64	184
	Filkins [Lechlade]	Rev. H. C. Sturges ...	5	1 0	281	30·78	...
D†	Oxford (Mag. Coll. Laboratory).	E. Chapman, Esq. ...	5	1 0	186 ⅄	32·19	180
	,, (,, ,, ,,).	,, ,, ,, ...	5	33 11	223 ⅄	27·67	...
	,, (Radcliffe Observatory)..	E. J. Stone, Esq., F.R.S.	8	1 8	210	31·96	181
D	,, (,, ,,)..	,, ,, ,,	11	2 4	210 ⅄	32·69	159
	,, (,, ,,)..	,, ,, ,,	10	22 0	230	30·56	160
	,, (,, ,,)..	,, ,, ,,	10	112 0	320 ⅄	22·49	182
D	,, (Norham Road)	Rev. C. B. Mount ...	9	1 0	220 ?	35·26	167
D	,, (Elsfield) ...	H. Parsons, Esq. ...	6	1 0	330	32·67	194
	Stanton St. John's ...	Mrs. Thomson ...	8	1 0	340	30·71	184
	,, ,, ,, (Woodperry)..	J. Thomson, Esq. ...	6	1 0	399	32·15	187
	Witney (Ringwood Farm) ...	Mr. J. W. Abraham ...	5	5 0	...	32·90	172
	Chipping Norton (Kingham)	E. Lockwood, Esq. ...	5	4 6	442	35·24	...
D	Bicester (Middleton Park) ...	Mr. B. Hope ...	5	2 6	390	33·69	187
*	,, (Stratton Audley Park).	G. Glen, Esq. ...	5	2 5	381 ⅄	29·59	152
	Steeple Aston ...	B. S. Ogle, Esq. ...	5	0 3	400 T	34·04	186
D	,, ,, (The Grange) ...	Adl. Bradshaw, R.N, CB.	8	1 0	400	35·29	209
D	Banbury (Bloxham Grove) ...	Rev. G. Warriner ...	8	3 10	387 ⅄	30·70	167
D	,, (Cotefield, Bodicote) ...	T. E. Cobb, Esq. ...	8	2 0	383 ⅄	30·49	191
D	,, (Swalcliffe Park) ...	G. H. Norris, Esq. ...	5	1 0	522 T	36·56	200
D†	,, (High Street) ...	T. Beesley, Esq. ...	6	7 0	330 ⅄	31·49	193
	NORTHAMPTON.						
	Brackley ...	Mr. E. Durran ...	8	6 10	400 T	29·27	156
	Chacombe House [Banbury] ...	Major H. C. Norris ...	5	1 0	400 ⅄	31·37	156
D	Thorpe Mandeville [Banbury] ...	Mr. S. Baines	5	1 0	530	31·88	179
D	Towcester (Whittlebury) ...	W. S. Miller, Esq. ...	5	1 6	...	35·25	199
D	,, ...	P. Phipps, Esq. ...	5	1 0	...	31·84	167
	,, (Easton Neston) ...	Mr. E. Slarke ...	8	1 0	340 T	32·01	161
D	Courteenhall Rectory ...	Rev. G. B. Hooper ...	8	1 0	400?	34·35	220
	Blisworth ...	F. Law, Esq. ...	...	...	...	31·57	138
D	Litchborough ...	E. Grant, Esq. ...	5	1 1	...	33·91	204
	Northampton (Preston Deanery).	F. Law, Esq. ...	5	1 0	...	27·22	...
D	Daventry (Fawsley) ...	Lady Knightley ...	5	1 0	477 B	30·74	181
	Weedon (Floore) ...	E. G. Loder, Esq. ...	4	1 0	270	30·77	172
D	Castle Ashby ...	R. G. Scriven, Esq. ...	5	1 0	263 ⅄	31·65	186
	,, ,, ...	G. Scriven, Esq. ...	...	...	...	31·20	198
D	Northampton (Little Houghton).	Mr. J. Brawn ...	5	2 4	...	28·96	164
	,, (Coton Mill) ...	H. J. Eunsor, Esq. ...	5	1 0	360	29·59	167
D	,, (Agnes Road) ...	F. Law, Esq.	5	5 0	245 T	27·70	182
D	,, (The Holly's) ...	Alderman Macquire ...	8	1 6	232	28·80	173
D	,, (Hazlewood Road)	H. Terry, Esq. ...	5	5 0	253	26·82	167
D	,, (Gold Street) ...	Mr. S. Law ...	5	6 6	230 ⅄	26·03	171
D	,, (Sedgebrooke) ...	C. A. Markham, Esq....	5	1 0	311 ⅄	28·65	187

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORTHAMPTON—(*con.*)						
Northampton (Sedgebrooke)	C. A. Markham, Esq.	5	1 0	311 ⅄	28·45	...
D ,, (Althorp House)	C. S. Groom, Esq.	8	3 10	310 ⅄	28·37	183
Daventry (Waterloo)	F. F. Rodhouse, Esq.	5	...	...	32·21	184
D Holdenby Rectory	Rev. C. Bond	5	1 6	...	30·35	207
D Wellingborough (Swanspool)	N. P. Sharman, Esq.	5	0 2	...	32·00	193
D ,,	E. Sharman, Esq.	5	0 2	...	33·08	193
D Thrapstone (Hargrave)	J. L. Baker, Esq.	5	1 0	219 ⅄	29·94	144
Hazelbeach	Mrs. Pell	5	2 0	584 T	32·27	152
D Kettering	J. Wallis, Esq.	8	1 3	300 B	28·23	170
D ,,	C. W. Lane, Esq.	5	0 8	280	29·03	196
Rothwell	J. More, Esq., M.D.	12	1 2	300	29·05	153
Oundle (Pilton Rectory)	Rev. F. G. Hodgson	5	1 0	...	30·90	...
D ,, (Talbot Hotel)	Baldwin Latham Esq CE	5	1 0	115	26·57	155
D ,, (Queen Anne's Place)	Rev. W. E. Stewart	5	0 10	112	29·96	185
D Rockingham Castle	Mr. H. Watt	5	3 0	400 L	32·49	161
D Peterborough (Springfield Ho.)	J. Whitwell, Esq.	8	2 6	50 L	27·84	136
D Easton [Stamford]	Mr. H. Watkins	5	0 11	278 T	28·87	191
D Maxey Vic. [Market Deeping]	Rev. W. D. Sweeting	5	1 0	32 ⅄	29·01	190
,, ,, [,, ,,] M	,, ,, ,,	5	1 0	32 ⅄	28·84	...
HUNTS.						
D St. Neots (Tetworth Hall)	Mrs. Kaye	5	0 8	190 ⅄	27·71	179
D Alconbury	Rev. R. Conway	5	1 0	...	27·69	209
Wistow	Rev. T. Woodruff	5	1 1	...	26·96	127
Whittlesea Mere	R. Lunn, Esq.	8	1 0	...	28·93	184
BEDFORD.						
Luton	W. H. Leete, Esq.	5	1 0	344 T	27·24	160
Woburn (Experimental Farm)	Mr. F. E. Fraser	8	3 8	...	25·05	...
Ampthill (Silsoe)	H. Trethewy, Esq.	5	1 0	214 T	25·90	181
,, (Wrest Park)	Mr. G. Ford	5	1 1	...	26·26	...
D† Aspley Guise (Oaklands)	E. E. Dymond, Esq.	5	1 1	433 T	27·41	175
D Stotfold [Baldock]	Dr. Swaine	5	0 9	220	23·40	159
Ampthill	Mr. J. Brown	5	1 0	313 T	27·38	164
D Woburn (Hulcote Rectory)	Rev. B. Chernocke Smith	5	1 0	310	28·72	149
Ampthill (Lidlington Vic.)	Rev. F. Veasey	...	...	...	29·05	167
,, (Haynes Vicarage)	Rev. A. E. D. Osborn	5	0 9	323 T	25·66	...
,, (,, Park)	F. J. Thynne, Esq.	5	2 8	285 ⅄	26·21	173
Biggleswade (Old Warden)	Mr. G. R. Allis	8	1 2	...	25·67	133
,,	C. T. Newbery, Esq.	5	28 0	130 T	26·21	...
D Potton (Wrestlingworth)	H. J. King, Esq.	5	1 0	...	25·05	159
Cardington	Mr. J. McLaren	8	0 0	106	25·56	...
,, (*Staff gauge*)	,, ,,	12	3 6	109	24·63	...
D Sandy Rectory	Rev. J. Richardson	5	0 7	...	25·78	120
D ,, (The Lodge)	Rt. Hn. A. W. Peel, M.P.	5	1 0	...	24·80	153
Bedford	D. Robie, Esq.	5	0 10	115 T	26·10	115
,, (Clapham Park)	J. Howard, Esq., M.P.	8	1 0	220 ⅄	26·25	160
Tempsford Hall	Col. W. Stuart	5	0 9	80 T	25·03	175

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above SeaLevel	1886	
			ft. in.	feet.	inches.	
BEDFORD—(*con.*)						
Bedford (Milton Ernest)	F. Newbery, Esq.	5	5 0	130?	26·29	121
D Podington	R. R. B. Orlebar, Esq.	5	1 0	256 T	29·72	166
CAMBRIDGE.						
D†Odsey Grange No. 2 [Royston]	H. G. Fordham, Esq.	5	1 0	263 ⊼	22·33	169
D ,, ,, No. 1 [,,]	,, ,,	5	1 0	263 ⊼	22·73	172
D†Guilden Morden [,,]	J. G. Johnson, Esq.	5	1 2	106 ⊼	23·98	149
Trumpington	F. Parsons, Esq.	5	1 0	...	24·77	150
D Granchester Mill	J. Nutter, Esq.	5	5 0	31 ⊼	24·08	184
D Cambridge (Fulbourn Asylum)	G. E. Crallan, Esq.	5	0 10	70 ⊼	24·18	124
D ,, (W.W.Cherryhinton)	W. W. Gray, Esq., C.E.	5	1 0	35 ⊼	22·72	194
D ,, (Beech House)	J. Nutter, Esq.	8	4 0	40 ⊼	23·43	168
D ,, (Sidney Street)	Mr. W. E. Pain	8	60 0	92 ⊼	21·53	177
D ,, (Trinity College)	J.W.Glaisher, Esq.FRS	8	0 6	40	24·00	170
Hardwicke	Rev. J. S. Brown	5	0 7	...	28·57	144
D†Cambridge Observatory	Professor Adams, F.R.S.	5	1 0	84 ⊼	25·34	166
D ,, ,,	,, ,, ,,	8	1 0	84 ⊼	24·80	166
Quy Hall	Mrs. Francis	5	0 5	...	22·69	187
Papworth Hall	Rev. E. Cheere	5	1 0	158 T	28·27	144
D Ely (Stretham)	Mr. J. Housley	9	4 9	13 ⊼	23·67	148
D ,, (,, Ferry)	Mr. C. Wright, Junr.	8	5 0	...	21·59	147
D ,, (Littleport Vicarage)	Rev. Canon Hopkins	5	1 0	60?	24·57	175
Chatteris (Aylesby House)	A. A. Ruston, Esq.	8	0 6	...	25·70	168
D ,, (The Priory)	H. F. Fryer, Esq.	5	0 6	45	26·22	160
,, (Slade Farm)	Mr. T. Triplow	8	13 0	44 ⊼	24·49	...
March	R. Lunn, Esq.	...	...	...	28·18	134
Stanground Sluice	,, ,,	8	1 0	..	26·46	120
* March (Stags Holt)	W. C. Little, Esq.	5	1 0	15?	27·19	...
Upwell (Marmont Priory Lock)	R. Lunn, Esq.	8	1 0	...	25·02	179
D ,, (Euximoor House)	H. West, Esq.	5	0 8	15?	27·40	165
D Thorney (Wryde House)	S. Egar, Esq.	9	2 0	12 L	?22·87	143
Wisbech (Coldham Hall, Elm)	H. J. Little, Esq.	5	1 0	15	26·76	152
D ,, (Bank House)	A. Peckover, Esq.	8	0 8	6	28·30	162

DIVISION IV.—EASTERN COUNTIES.

ESSEX.						
D Canning Town [London]	D.Radford Sharpe, Esq.	6	14 6	23 ⊼	20·34	157
D Shoeburyness	The Asst. Super. Expts.	8	7 3	18	16·97	156
Southend (Avenue Road)	C. J. Holthouse, Esq.	5	3 0	110	20·30	146
D Romford (North Ockendon Rect.)	Rev. R. T. Crawley	5	1 3	100 T	22·02	134
D Ilford, Little	Rev. A. Shadwell	10	1 0	27 T	20·89	155
,, (Great Gearies)	Mr. J. Douglas	5	1 6	120	23·64	157
Romford (Normanhurst)	E. C. Allam, Esq., C.E.	8	2 0	93 ⊼	23·37	...
D Woodford (The Harts)	Miss Spicer	5	3 6	203 T	26·30	165
,, (Haggan Lane)	W.B.Bryan, Esq., C.E.	8	1 0	176	22·51	121

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above SeaLevel feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
	ESSEX—(*con.*)							
	Brentwood (Sawyer's Hall Farm)	Rogers Field, Esq.,C.E.	5	1	0	270 T	26·04	...
	,, (Dudbrook House) ...	Mr. W. Dellar	8	1	3	...	29·41	...
	Maldon (Norton Hall)	C. Clarke, Esq.	5	2	6	130 T	20·45	125
	WalthamAbbey(Gunpdr.Factry)	The Superintendent ...	8	4	0	70 L	22·64	...
	Epping (The Hemnalls)	J. Nicholl, Esq.	8	0	8	345	30·97	128
D	Bradwell-on-Sea (BradwellHall)	J.C.Chillingworth, Esq.	5	1	1	...	20·46	137
	,, ,, (Down Hall)...	R. Page, Esq.....	5	1	0	20	20·88	121
	Chelmsford (Great Baddow).....	H. Corder, Esq.....	5	0	6	...	22·87	...
	,, (,, ,, Vineyards)	Rev. A. W. Bullen ...	5	1	1	...	22·53	152
D	,, (Writtle)	E. Rosling, Esq.	5	1	0	140 T	19·48	157
	,, (High Street).....	F. Chancellor, Esq. ...	8	1	0	86 T	20·35	136
D	,, (Roxwell)	R. W. Christy, Esq....	5	1	0	76 T	20·93	136
D	Harlow (Sheering).....	Rev. Canon Hill.....	5	1	0	214 T	23·24	157
	Witham (Little Braxted Hall)...	J. Taber, Esq.	5	1	0	50	21·23	170
	,, (Rivenhall)	Rev. F. B. H. Bridges	5	1	0	138 T	22·16	...
	Great Bentley (Wick, St. Osyth)	A. Harwood, Esq.	5	2	0	91 T	19·16	...
D	Dunmow (High Roding)	Rev. E. Maxwell	5	1	0	252 T	23·29	171
	Great Bentley (The Lodge)	Capt. W. Delf.....	6	0	6	150	21·44	...
D	Colchester (Beverley Road)	W. G. Benham, Esq....	5	0	8	119 T	22·72	146
	Braintree (Bocking Place).....	S. Courtauld, Esq.. . ..	8	2	0	212 T	23·99	161
	Earls Colne (Chalkney House)...	H. F. Hills, Esq.	5	1	0	180 T	22·43	...
D	Manningtree (Lawford)	O. Bendall, Esq.....	5	1	0	...	21·84	157
D	Dedham (The Rookery)	W. H. Penrose, Esq....	8	1	0	43	23·54	158
	Saffron Walden (Newport)	Rev. G. F. Tamplin ...	5	4	0	220 T	25·55	159
	,, ,, ...	J. G. Bellingham, Esq.	5	1	0	179 T	25·43	176
	SUFFOLK.							
	Nayland (Tendring Hall)	Mr. G. L. Rushmore ...	8	0	8	135 T	22·11	...
	Stutton (Alton Hall).....	J. South, Esq	5	1	2	...	23·53	...
D	Ipswich (Orwell Park)	Mr. J. Wallis	8	1	0	60 T	23·79	170
D	,, (Belstead Hall)	A. Harwood, Esq.	8	9	0	120 T	23·01	127
	,, (,, ,,)	,, ,, ,, ...	5	8	0	120 T	23·18	...
D	Sudbury	W. Bayly Ransom, Esq.	5	1	7	93 T	22·62	162
	Ipswich (Bishop's Hill).....	G.A.Biddell, Esq., C.E.	5	1	0	104 T	23·65	...
	,, (Playford).....	M. Biddell, Esq.....	5	2	6	120 T	22·52	...
	Lavenham Hall	W. Biddell, Esq., M.P.	5	1	11	220 ?	23·17	...
D	Woodbridge (Bank House)	S. Alexander, Esq. ...	5	1	0	...	25·84	143
D	,, (The Cedars, Melton) ...	W. P. T. Phillips, Esq.	5	...		...	24·46	160
D	Rendlesham Hall	RtHonLrd.Rendlesham	5	1	9	88 T	22·46	143
D	Haverhill (Great Thurlow)	Mr. A. Boa.....	5	1	0	241 T	22·78	165
	Ash Bocking Vicarage	Rev. M. B. Cowell.....	5	7	3	231 T	21·02	...
D	Aldborough (Aldringham Ho.)..	F. Garrett, Esq.....	8	4	5	50 B	21·90	175
D	Stowmarket (Wetherden Rec.)...	Rev. C. J. Goodhart ...	8	0	6	185 T	26·64	149
D	BurySt.Edmunds(DrinkstonePk)	Mr. G. Palmer	8	1	2	220 T	23·61	154
	Leiston (Alma Cottage).....	Mrs. Peck	8	4	3	...	22·32	146
D	Framlingham (Mount Pleasant).	Mr. R. Whitehead.... .	5	1	2	...	23·46	132
D	Bury St.Edmunds	Mr. F. Summers	...	...		...	19·08	137
†	,, ,, (Westley)	R. Burrell, Esq.....	5	1	0	226 T	24·41	...

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
SUFFOLK—(*con.*)						
D Bury St. Edmunds (Hengrave)...	Mr. W. Nichol	5	1 2	...	22·39	...
D† ,, ,, (Culford).....	Mr. J. Smith	5	1 6	100	24·21	178
D Ixworth (Walsham-le-Willows).	Miss M. C. Martineau..	5	1 0	...	22·13	152
Stradbroke Vicarage	Rev. Dr. Tate.....	5	2 2	...	22·42	...
†Ixworth (Barningham)	W. Lingwood, Esq. ...	8	1 0	25 ?	22·11	...
D Weybread Vic. [Harleston].....	Rev. J. H. White	8	1 1	...	20·87	145
D Beccles (Sotterley Hall)	Col. St. J. Barne, M.P.	5	0 11	...	26·38	175
D ,, (Ellough Rectory)	Rev. S.Earnshaw-Wall	5	1 1	103 ⅄	24·48	...
†Lowestoft (Gisleham)	Rev. H. Jodrell	5	1 0	36 T	22·20	...
† ,, (Carlton Colville).....	G. Edwards, Esq., C.E.	8	0 9	6 T	?23·31	...
D ,, (Kirkley)	Mr. C. McMath	5	1 0	58 ⅄	21·97	141
D ,, (Bryn-y-Môr)	S. H. Miller, Esq.	5	1 0	86	22·19	167
,, (,, ,,) .....M	,, ,, ,, ...	8	1 0	86	22·32	...
,, (Somerleyton Rect.)...	Rev. Canon Du Port ...	8	1 0	50	23·51	...
NORFOLK.						
D Diss	T. E. Amyot, Esq.....	5	1 0	96	22·81	160
D Harleston (Rushall Vicarage) ...	Rev. C. Gape	5	1 1	117 ⅄	21·83	165
D†Geldeston [Beccles]	E. T. Dowson, Esq. ...	5	1 0	38 ⅄	23·22	179
,, [,,] .....M	,, ,, ,, ...	8	1 0	38 ⅄	23·31	...
D ,, [,,]	R. Dashwood, Esq.....	5	1 0	49 B	23·16	165
Ellingham [,,]	H. Youngman, Esq. ...	5	1 6	...	22·93	...
Long Stratton (Boyland Hall)...	Mr. M. Riches	5	0 3	...	25·89	...
,, ,, (Hapton)	Rev. Canon Du Port ...	...	...	...	25·53	...
Saxlingham Nethergate	E. Knight, Esq.....	5	1 2	...	24·84	...
D Loddon (Bergh Apton)	Rev. T. F. Lloyd	8	2 4	...	24·06	146
Mulbarton	Rev. R. G. Lucas	5	1 4	...	24·99	120
Watton	Rev. Canon Du Port ...	...	...	...	26·15	...
Hingham	,, ,, ,,	...	...	...	29·27	...
D Downham Market (W. Dereham)	Mr. C. Blanchfield.....	5	0 11	20	30·60	188
D Denver	Rev. Canon Du Port ...	8	1 2	82 L	30·78	173
D Stoke Ferry (Wereham)	,, ,, ,, ...	...	...	66	28·34	154
D Downham (Crimplesham).....	T. Horn, Esq.	5	1 0	110 T	30·46	190
Swaffham (Pickenham Hall) ...	E. A. Applewhaite Esq.	5	1 0	104 ⅄	27·70	175
Outwell Sluice	R. Lunn, Esq.	9	...	16	26·49	134
Yarmouth (Sailors' Home)	The Meteor. Council ...	8	4 0	12	24·31	196
,, (Halvergate Hall) ...	Rev. Canon Du Port ...	5	3 3	48 ⅄	23·65	...
Norwich (Postwick)	Rev. Sir W. Vincent, Bt.	5	1 6	20 ?	23·83	132
D ,, (Carrow House)	J. J. Colman, Esq., M.P.	5	4 0	30	25·47	...
† ,, (Thorpe High House)...	W. Birkbeck, Esq. ...	5	1 0	137 T	26·99	181
D ,, (,,)	A. W. Preston, Esq. ...	5	6 0	78 ⅄	25·23	185
,, (St. Catherine's Close)...	Mrs. Evans.....	5	2 3	120	25·48	160
D ,, (Essex Street)	F. Dix, Esq.	9	2 6	85 T	26·08	159
D ,, (Heigham)	A. W. Preston, Esq....	5	1 0	34 ⅄	25·72	175
†Acle.....	Rev. R. W. Kennion...	8	0 9	40	21·92	...
D*Swaffham (Grammar School) ...	C. J. Drury, Esq.	5	1 10	242 ⅄	30·94	170
D ,, ...	W. H. Plowright, Esq.	5	5 0	250	30·13	169
D Mattishall	Rev. Canon Du Port ...	...	...	...	26·48	170

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORFOLK—(*con.*)						
D†Honingham Hall	Lady Bayning	5	0 6	110 T	27·69	182
D Sprowston (Oak Lodge)	T. Cozens Hardy, Esq.	5	1 0	101 R	24·95	169
South Walsham	Rev. Canon Du Port	...	...	...	26·42	...
East Dereham	G. H. Cooper, Esq.	8	3 0	161	26·64	139
,, ,,	Rev. Canon Du Port	...	...	...	24·95	...
D Drayton	,, ,, ,,	5	1 2	...	24·80	151
D Swaffham (Dunham)	,, ,, ,,	5	1 1	320	29·95	181
D South Walsham (Oby)	,, ,, ,,	...	...	...	22·63	192
Salhouse	,, ,, ,,	...	...	...	27·20	...
Wiggenhall (Outlet Syphons)	R. Lunn, Esq.	8	...	...	24·39	154
D Terrington	J.T.Seccombe, Esq, M.D	5	1 0	15 R	26·41	155
Felthorpe	Miss Bourchier	5	1 1	75	25·92	...
Cawston	Rev. T. H. Marsh	5	1 0	135 T	29·33	189
Aylsham (Woodgate)	B. J. W. Purdy, Esq.	5	1 0	100 T	28·07	167
North Walsham (Worstead)	Mrs. Cooke	5	0 9	...	26·03	144
D ,, ,, (Dilham)	Rev. Canon Du Port	...	...	...	26·86	204
†Hillington Rectory	Rev. H. Ffolkes	8	1 0	89 R	28·69	191
D† ,, School	,, ,,	5	3 6	94 R	28·51	195
D Fakenham (Pensthorpe)	Rev. Canon Du Port	...	...	...	29·30	173
D ,, (Fulmodeston)	,, ,, ,,	...	...	...	28·27	185
North Walsham (Knapton)	,, ,, ,,	...	...	...	26·47	138
Cromer (Northrepps)	,, ,, ,,	...	...	...	25·86	...
Holt (Letheringsett Hall)	W. H. C. Hardy, Esq.	8	1 0	...	28·51	135
Hunstanton Hall	Mr. Nisbet	11	3 8	60 R	23·46	...
D Wells-next-the-Sea	H. R. Rump, Esq.	5	1 0	16 T	27·50	213

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTS.						
D Landford	J. R. Wigram, Esq.	5	1 10	167 R	32·38	211
D Donhead St. Mary (Charlton Ho.)	Col. G. Best	5	0 7	514	38·29	202
D Broad Chalke	Rev. C. Soames	8	0 8	315	34·07	198
D†Salisbury (Alderbury)	Rev. R. S. Hutchings	5	0 8	263 R	32·01	179
D† ,, (West Dean)	Rev. W. L. W. Eyre	5	1 0	137 B	31·71	200
D ,, (Britford)	Rev. C. Soames	5	1 0	...	33·21	204
D ,,	W. Hussey, Esq.	5	1 6	150 T	32·71	207
D ,, (Wilton House)	Rev. C. Soames	8	0 5	180 R	33·63	210
D Mere	,, ,, ,,	5	1 0	...	39·49	199
D ,, Down	,, ,, ,,	5	1 0	600?	37·87	219
D Winterslow	,, ,, ,,	5	1 0	470	30·59	194
D Warminster (Rye Hill)	,, ,, ,,	8	2 0	450	39·90	203
D Amesbury	,, ,, ,,	5	1 0	...	29·01	193
Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	380?	31·29	182
Warminster	E. Cruse, Esq.	5	1 0	387 R	37·60	180
D ,, (Downside)	The late W.J.Stent, Esq	8	4 0	393	39·97	207
D Amesbury (Figheldean)	Rev. C. Soames	5	1 0	260	32·67	191
Ludgershall	Rev. W. H. Awdry	8	0 8	422 R	35·30	200

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on wh ch ·01 or more fell.
	WILTS—(*con.*)						
D	Ludgershall (Everleigh)	Rev. C. Soames	5	1 2	590	36·24	193
D	,, (Collingbourne Kingston)	Baldwin Latham Esq CE	5	1 0	470 ⅄	35·55	206
D	Market Lavington	Rev. C. Soames	5	1 0	...	31·11	181
D	Trowbridge (Steeple Ashton Vic.)	Rev. A. O. Hartley	5	1 0	240 T	32·13	180
D	,, (Wingfield)	T. H. Clark, Esq.	5	1 0	200 ?	35·64	182
D	,,	Rev. C. Soames	5	1 2	...	34·16	188
D	,, (Rodney House)	W. J. Mann, Esq.	5	1 1	140	33·97	175
	Pewsey	Mr. J. J. Prince	5	1 0	...	34·02	...
D	Bradford	Rev. C. Soames	5	1 0	...	35·18	166
D	,,	,, ,,	5	1 0	...	36·07	172
D	,, (Holt)	,, ,,	...	...	...	34·98	206
	Devizes (Southgate House)	B. H. Cunnington, Esq.	8	1 0	436 T	33·86	196
D	Burbage (Wolfhall)	Rev. C. Soames	8	1 0	546	34·32	172
D	Shalbourne	,, ,,	5	1 0	...	36·65	185
D	Bishop's Cannings	Rev. C. W. Hony	5	1 0	446 ⅄	36·06	196
D	Buttermere	Rev. C. Soames	5	4 9	...	35·96	224
D	Great Bedwyn	,, ,, ,,	5	1 0	...	34·71	196
D	Devizes (Shepherd's Shore)	,, ,, ,,	5	1 6	555	37·51	188
D	Chippenham (Lacock)	Miss Awdry	5	0 11	250	35·00	205
	Marlborough (Mildenhall)	Rev. C. Soames	5	1 0	456	33·79	193
D	Corsham	,, ,,	5	1 0	350 ?	34·66	182
D	Calne (High Street)	Mr. H. Wilkins, Junr.	5	3 6	244	33·86	190
D	,, (Compton Bassett)	Mr. J. Allen	8	1 0	400 T	35·64	208
D	Ramsbury	Rev. C. Soames	5	1 0	411	32·72	197
D	Ogbourne Maizy	,, ,, ,,	5	1 0	...	33·79	175
D	Broad Hinton	Rev. J. A. Lloyd	5	3 0	633 T	32·17	182
D	Wootton Bassett	Rev. C. Soames	5	1 0	...	33·67	201
D	Swindon, New	T. G. O'Conor, Esq.	8	0 4	378	33·33	190
	,, (Pen Hill)	H. Arkell, Esq.	5	0 10	400	31·36	...
D	Malmesbury (Charlton Cott.)	Rev. C. Soames	...	1 0	...	39·23	179
D	,, (,, Park)	Rt Hon. Earl of Suffolk	5	0 11	...	33·65	146
	DORSET.						
	Weymouth	The Roy. Meteor. Soc.	...	...	...	32·54	...
D	,, (Langton Herring)	Rev. C. H. Gosset	8	1 0	200 ?	31·20	175
+	,, (Osmington Lodge)	Col. Hall	5	1 0	225 B	36·64	182
†	Abbotsbury	Mr. A. Dight	5	3 6	150	32·51	...
D	Wareham (Castle Gardens)	S. W. Bennett, Esq.	5	3 2	15	34·99	169
	Little Bredy	Rev. R. R. Meadows	5	1 0	335 ?	42·55	157
D*	Westbourne [Bournemouth]	E. B. K. Welch, Esq.	5	1 0	137 T	36·72	183
	Poole	F. Styring, Esq.	5	1 1	6	36·01	173
D	,, (The Yarrells)	,, ,, ,,	5	1 1	40	35·64	157
D	,, (Parkstone)	R. H. Barnes, Esq.	5	1 0	198 L	36·96	195
D	Lyme Regis	M. C. Preston, Esq.	5	1 1	...	34·74	195
D	Beaminster Vicarage	Rev. Canon Codd	5	1 0	...	38·89	202
D	Blandford (Whatcombe)	J. Mansel-Pleydell, Esq.	5	0 4	320 B	37·43	128
	,, (Tarrant Keynston)	G. Galpin, Esq.	5	1 0	...	36·96	...

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
DORSET—(*con.*)						
Cerne Abbas (Minterne Rectory)	Rev. H. Pix	5	2 0	566 T	42·85	179
D ,, ,, (Melbury)	Mr. T. C. Elliott	12	2 9	...	35·95	126
D Beaminster (Chedington)	Miss Creed	5	1 6	604	42·01	209
D*Wimborne Minster (Chalbury)	Rev. G. H. Billington..	5	2 0	338 ⅄	34·38	168
D Shaftesbury	T. Ackland, Esq.	5	1 4	722 ⅄	37·63	190
D Gillingham	S. H. Stephens, Esq....	5	1 2	244 T	36·51	202
DEVON.						
Salcombe (Prawle Point)	The Meteor. Council ...	8	1 9	350	35·88	210
D ,, (The Molt)	J. Drew, Esq.	8	14 3	61 L	41·91	160
† Bolt Tail	G. Balkwill, Jun., Esq.	5	2 0	297	41·05	...
D Kingsbridge	W. H. Webb, Esq.	5	1 0	84	49·00	185
D† ,, (Ringmore)	BaldwinLathamEsq CE	5	1 0	147	40·35	191
D Dartmouth (Strete)	Dr. Madden	8	1 0	200 B	41·05	154
D Plymouth (Navigation School)	J Merrifield,Esq.LL.D.	8	9 2	75 ⅄	35·40	205
D*Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1 0	201 ⅄	37·54	216
Brixham (Lupton)	Mr. J. Gibson	5	2 6	220 T	44·63	161
Plympton (Hemerdon)	Major Woollcombe ...	5	4 0	360	45·87	...
D Totnes	T. H. Edmonds, Esq....	5	1 0	94 L	48·09	208
D Paignton (Madeira Cottage)	P. Symons, Esq.	5	8 0	20 T	37·67	192
D ,, (Rosenville)	J. Greenfield. Esq.	5	7 0	28	43·15	207
Bere Ferrers	Rev. F. T. W. Wintle.	5	1 0	100	45·85	212
D†Torquay (Lamorna)	W.Pengelly, Esq. F.R.S	5	1 0	200 ⅄	40·54	208
D* ,, (Castle College)	C. J. Harland, Esq. ...	5	1 0	167 ⅄	37·75	193
D† ,, (Babbacombe) *Snowdon*	E. E. Glyde, Esq.	5	1 0	294 ⅄	41·53	208
,, (Watcombe Park)	Col. C. Ichabod Wright	5	1 0	500 T	42·27	...
Buckfastleigh (Bossel Park)	J. Hamlyn, Esq	5	2 0	250	63·80	189
Walkhampton (Meavy)	A. P. Prowse, Esq. ...	5	2 0	750 B	47·80	207
* ,, (Lowery)	H. Francis, Esq., C.E	8	1 0	900	66·15	...
D ,, (,,)	,, ,, ,,	5	1 0	890	56·40	183
D Ashburton (Holne Vicarage)	Rev. J. Gill	5	1 0	650 B	66·07	223
D† ,, (Druid House)	Fabyan Amery, Esq....	5	1 0	572 T	55·09	198
D Kingsteignton (Teignbridge Ho.)	F. H. Plumptre, Esq...	5	1 0	27 ⅄	42·82	189
†Teignmouth (Lower Reservoir)	W. C. Lake, Esq. M.D.	5	1 0	138 L	48 62	191
,, (Marine Villa)	W. B. Harris, Esq. ...	5	1 0	18	38·74	191
,, (Woodway)	G. W. Ormerod, Esq....	5	1 0	235	39·07	...
D†Tavistock (Public Library)	Mr. R. Westington ...	8	20 0	283 T	45·39	214
D ,,	H.A.Gibson, Jun., Esq.	5	1 1	272	52·74	229
D†Ilsington (Middlecott House)	Alfred Lyon, Esq.	9	3 6	649 T	50·95	167
Princetown	Royal Meteor. Soc. ...	5	...	1395	73·76	...
,, (Cowsic Valley)	H. Francis, Esq., C.E.	8	1 6	1352 T	76·60	...
D Ashburton (Cator Court)	F. H. Firth, Esq.	5	1 0	1071 T	65·12	220
Bovey Tracey (Colehays)	Mr. E. Underdown ...	5	1 0	..	50·09	...
D Dawlish	Capt. Strangways, R.N.	5	1 6	120 B	38·07	209
†Milton Abbot (Endsleigh)	Mr. W. Prout	5	0 8	180 ?	47·97	...
D Chudleigh (Torquay Waterworks)	T. S. Weeks, Esq., C.E.	8	4 0	718	43·32	202
Budleigh Salterton	R. Walker Esq.	5	4 0	80	34·60	188
,, ,, (E. Budleigh)	R. H. Lipscomb, Esq...	5	1 0	70 ⅄	35·33	176

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
DEVON—(*con.*)						
D Starcross (Powderham Castle) ...	J. Drew, Esq.....	8	2 0	57 L	35·58	176
Coryton (Lew Down)	Mr. T. M. Symons.....	5	4 0	445	48·30	192
D Polapit Tamar [Launceston] ...	E. Coode, Esq.	5	2 9	...	41·76	231
D Chagford (Batworthy)	F. N. Budd, Esq.	8	1 0	1250 ?	67·59	212
†Sidmouth (Sidmount)	TheRoy.Meteor.Society	5	1 0	149 R	36·70	206
D Rousdon [Lyme Regis].....	C. E. Peek, Esq.	5	1 0	524 T	37·78	194
,, [,, ,,].....	,, ,, ,, ...	3	...	524 T	36·39	...
D†Clevelands [Lyme Regis].....	E. L. Ames, Esq.	5	1 11	465 R	38·47	195
Exeter (St. Leonard Road)	Miss M. E. Clark	5	1 0	110	34·85	...
D† ,, (Devon & Exet. Inst.) ...	Mr. E. Parfitt.....	6	13 7	155 R	33·46	150
D ,, (Manston Terrace)	Miss Dymond	5	1 0	166 R	33·92	196
,, (The Elms, Wonford).....	Mrs. Stephenson.....	5	1 0	...	31·93	...
D†Okehampton (Oaklands)	W. H. Holley, Esq. ...	5	1 0	521 T	50·60	187
D Axminster (Great Trill)	F. J. Sparks, Esq.....	5	1 0	300 T	38·54	131
D†Exeter (Brampford Speke)	Miss Gamlen	5	1 0	140 T	37·06	207
D Holsworthy (Clawton)	W. W. Melhuish, Esq.	5	1 1	400	41·34	215
D Axminster (Furzebrook)	A. P. Rogers, Esq.....	5	1 5	128 T	34·35	181
D ,, ...	Mr. S. Griffin.....	5	4 6	138 T	38·44	155
D Hatherleigh (Broomford Manor)	Mr. W. Mortimore.....	5	1 4	484 R	46·95	196
D Bradninch Vicarage	Rev. W. A. Strong ...	5	1 0	312 B	40·49	186
,, ,, ...	,, ,, ...	5	4 0	300	38·86	186
Hatherleigh (Winsford)	Mr. A. Muirhead	5	1 3	600	?36·80	...
D Cullompton.....	T. Turner, Esq.	5	1 0	202 R	39·28	199
D Petrockstow (Heanton Satchville)	Mr. A. Eames	5	1 0	...	47·02	193
Tiverton (Cove).....	W. N. Row, Esq.	11	0 10	450 ?	42·49	...
,, (Rose Bank)	H. B. Sharland, Esq...	5	1 0	280	46·84	203
D ,, (Broomhill)	Mrs. Dickinson	5	1 0	380	45·34	189
,, (Ivy Place.S.Peter's St.)	H. S. Gill, Esq.....	5	6 0	270	43·66	210
D Torrington (Beare Ho., Langtree)	Mr. J. Snow	5	1 0	451 R	47·63	205
D† ,, Vicarage	Rev. S. Buckland	5	1 0	323 T	46·63	182
,, (Stevenstone).....	R. H. Lipscomb, Esq...	5	1 0	450	47·91	205
,, (Little Silver).....	,, ,, ,, ...	5	1 0	450 T	46·76	204
D Bampton (Huntsham)	Col. Troyte	8	0 6	600 B	48·30	209
South Molton (Rose Ash)	The late Col. Davy ...	8	1 0	766 R	42·02	182
D Bideford (Heale House Littleham)	R. Sanders, Esq.	8	1 0	280 B	45·02	198
D Hartland Abbey.....	Mr. G. Sleep	5	1 6	222	43·91	198
D South Molton (East Street)	N.C.Hatherly, Esq.M.D	5	1 0	430 B	48·85	186
,, ,, (Castle Hill)	Mr. R. Nicholas	12	3 9	600	48·49	192
*†Bideford (Horwood)	Rev. J. Dene	5	1 0	288 T	37·77	208
D*† ,, (Northam)	Rev. M. D. Churchward	5	1 0	173 R	38·54	205
D WestBuckland(DevonCntySchl.)	Rev. J. H. Thompson..	5	1 0	650	51·07	220
D†Barnstaple	Mr. Knill	8	1 0	31 R	45·03	181
D ,, (Arlington Court) ...	Lady Chichester.....	8	1 1	613 B	54·61	215
D†Ilfracombe Hotel	Mr. W. Tattam	12	9 0	34	33·59	190
†Lynton (Lee Abbey)	C. F. Bailey, Esq.	5	0 6	320	39·70	...
D†Lynmouth (Glenthorne)	Mrs. Halliday.....	5	0 9	93	48·73	184

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
CORNWALL.						
Penzance (Penlee)	J. Branwell, Esq.	5	1 0	71 T	46·69	230
† ,, (South Parade)	W. H. Richards, Esq.	12	3 0	94 T	44·73	...
D ,, (St. Clare)	Rev. Preben. Hedgeland	5	1 0	213 T	45·50	248
Marazion	T. W. Field, Esq.	5	2 0	30 ?	43·88	213
Falmouth (New Observatory)	The Meteor. Council	11	1 9	...	51·13	232
,, (,, ,,)	E. Kitto, Esq.	8	2 0	167	49·70	219
St. Just	R. B. Searle, Esq.	5	1 0	400	42·00	...
D Falmouth (Carclew)	Mr. J. Simmons	5	0 9	...	50·25	190
D Redruth (Trewirgie)	A. H. Jenkin, Esq.	5	1 0	400 T	47·58	234
D Truro (Moresk House)	Mr. W. Searle	5	5 0	20	44·79	208
D† ,, (Royal Institution)	Mr. Newcombe	5	40 0	56 ⅄	44·31	197
D ,, (Porthgwidden)	Rev. Canon Phillpotts	5	1 0	50	47·18	233
D Probus (Lamellyn)	H. Tresawna, Esq.	5	0 6	...	48·00	165
St. Agnes	Mr. Opie	5	1 3	278 B	41·63	161
St Austell (St. Mewan)	Rev. G. L. Woollcombe	5	1 0	275 T	47·02	...
D†* ,, (Trevarna)	W. Coode, Esq.	5	0 6	300 ⅄	50·94	225
Par Station (Penellick)	W. E. Geach, Esq.	5	0 9	240 B	33·48	...
Empacombe [Devonport]	S. Harvey, Esq.	5	1 6	20	38·60	203
D St. Johns [Devonport]	Rev. J. H. Kirwan	5	1 0	20	39·82	193
D Lostwithiel (Lanwithan)	Miss Foster	10	1 1	80	49·53	217
D†Liskeard (Dean Terrace)	S. W. Jenkin, Esq., C.E.	5	1 1	375 ⅄	54·30	210
†Saltash (Pentillie Castle)	Mr. A. W. Cove	5	1 6	150 B	52·11	201
†Bodmin (Lanhydrock)	Rev. Prebendary Every	5	1 0	390	54·74	231
,, (Castle Street) *weekly*	Capt. Liddell, R.N.	5	0 1	315 T	55·82	...
† ,, (,, ,,)	,, ,, ,,	5	1 0	316 T	53·35	228
D† ,, (,, ,,)	,, ,, ,,	5	1 9	317 T	51·91	228
D† ,, (Fore Street)	Mr. A. Hambly	8	2 6	336 T	53·71	228
Liskeard (St. Cleer)	S. W. Jenkin, Esq., C.E.	5	1 1	620 ⅄	52·33	...
†Callington (Hingston Down)	Mr. Wadge	5	3 0	850 T	48·22	217
D†Launceston (Altarnun)	The late Rev. J. Power	5	1 0	570 B	61·17	201
D ,, (South Petherwin)	Rev. H. T. May	5	0 7	470 B	47·36	211
,, (Hexworthy)	H. M. Harvey, Esq.	5	2 7	410 T	48·69	213
North Tamerton [Holsworthy]	Major Holt	5	0 10	500	42·68	217
) Bude	J. Arthur, Esq.	5	1 0	16 B	35·76	163
SOMERSET.						
Chard (Cricket St. Thomas)	RtHn. Viscount Bridport	5	1 0	400 B	44·65	130
D Crewkerne (Bincombe House)	F. J. Sparks, Esq.	5	1 2	250 T	35·78	135
D Yeovil (West Coker)	Major Aldworth	5	1 0	250 T	33·70	202
,, (Hendford)	J. Curtis, Esq.	5	1 1	...	34·34	147
D Ilminster (White Lackington)	Rev. Prebendry Gowring	5	1 0	136 ⅄	36·86	194
,, (Ilton Vicarage)	Rev. R. B. Poole	5	1 3	100 ⅄	35·13	...
D South Petherton	W. Blake, Esq.	8	0 8	110 T	31·57	196
Wellington (Sunnyside)	W. Elworthy, Esq.	5	1 0	...	35 03	135
D Temple Combe (Stowell Rect.)	Rev. H. J. Poole	5	1 0	376 B	36·62	208
D Milverton	J. H. Bere, Esq.	5	1 0	198	41·29	201
D ,, (Halse)	J. D. Hancock, Esq.	5	1 1	165	36·94	187
,, (Fitzhead Court)	J. E. Knollys, Esq.	5	1 0	200	42·60	167

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
SOMERSET—(*con.*)						
D Taunton (Lydeard House)	C. Smith, Esq.	...	...	...	39·59	190
Cothelston House	C. E. J. Esdaile, Esq...	5	1 0	500	40·84	187
Wiveliscombe (Willett House)	J. Blommart, Esq.	5	0 7	380	44·07	176
D Somerton (Butleigh Court)	R. Neville Grenville, Esq	8	1 2	80	36·10	178
D Glastonbury (Street)	W. S. Clark, Esq.	8	1 0	70	38·18	202
,, (,, Hind Hayes)	J. Clark, Esq.	10	1 6	70	37·24	157
,, (High Street)	J. Spire, Esq.	8	34 0	122 ⇈	34·91	175
D ,,	Major Swayne	5	1 11	245 T	35·82	176
D ,,	J. G. L. Bulleid, Esq.	5	1 6	52 T	35·54	174
D Exford Rectory	Rev. Prebendary Howes	5	1 0	930 B	58·69	238
Bridgwater (Ashford)	G. B. Laffan, Esq.	5	1 2	80	41·25	167
Shepton Mallet	J. Spire, Esq.	8	2 8	435 ⇈	39·33	191
D Wells	Mr. R. J. Manning	5	44 0	181 T	40·34	178
D ,, (Westbury)	Miss Nalder	5	1 0	101	37·76	185
Porlock (Ashley Combe)	The Earl of Lovelace...	6	0 6	...	53·25	...
D Frome (Mells Rectory)	Rev. G. Horner	5	1 0	344 ⇈	42·31	206
D ,, (Rock House, Mells)	W. A. Fussell, Esq.	7	2 4	326 T	42·21	196
,, (,, ,, ,,)	,, ,, ,,	5	7 6	231 T	41·36	196
Chewton Mendip (The Priory)	Mr. J. Batt	5	1 5	550 T	46·16	176
Ston Easton	H. E. Hippisley, Esq.	5	3 0	480 ⇈	46·11	191
E. Harptree (Sherborne Reservoir)	Bristol Water Works...	5	1 0	338 T	45·77	200
D ,, (Harptree Court)	W. W. Kettlewell, Esq.	5	1 0	346 ⇈	51·75	203
Axbridge (Winscombe)	Rev. R. F. Follett	8	1 0	200 T	42·30	152
Weston-super-Mare (High St.)	The Roy. Meteor. Soc.	5	1 0	20	34·46	...
D ,, ,, ,, (Worle Vic.)	Rev. W. F. Rose	5	1 0	16	40·54	195
,, ,, ,, (Kewstoke)	Rev. S. G. Gillum	5	0 10	40 ?	38·82	186
Chew Magna	Bristol Water Works...	5	1 0	160 T	45·62	184
D† Bath (Royal Literary Institute)	Late C. P. Russell, Esq.	6	8 0	75 ⇈	35·11	165
D ,, (Queen's Parade)	H. Stokes, Esq.	5	1 0	100 T	35·79	207
D Batheaston Reservoir	A. Mitchell, Esq.	6	2 0	226 T	35·31	164
Yatton (Chelvey)	Bristol Water Works...	5	12 0	...	37·76	152
Barrow Gurney Reservoir	,, ,, ,,	5	1 0	320 T	46·05	193
D Bristol Docks (Underfall Yard)	J. W. Girdlestone Esq CE	8	16 2	42	34·85	179

DIVISION VI.—WEST MIDLAND COUNTIES.

GLOUCESTER.						
Bristol (Small Street)	Bristol Water Works...	12	33 10	52	33·82	169
D† Clifton (South Parade)	Dr. G. F. Burder	8	1 0	192 ⇈	39·70	180
D Bristol (Shirehampton)	Rev. C. O. Miles	5	1 3	50	37·21	168
,, (Over Court) Park	R. C. C. Lippincott, Esq..	5	1 0	148 T	39·06	190
,, (,, ,,) Garden	,, ,, ,,	8	0 8	140	39·26	190
Chipping Sodbury (Frampton Cotl)	J. Marsh, Esq.	5	1 0	180 ⇈	35·94	164
D ,, ,, (Stanshawes Ct)	R. N. Hooper, Esq.	5	1 3	280 T	37·88	179
D Wickwar Rectory	Rev. R. J. Lyon	5	1 0	260 ⇈	35·86	180
D Fairford (Kempsford)	R. A. Iles, Esq.	5	0 8	...	31·22	165
D Berkeley (Salter Street)	H. E. Cooke, Esq.	5	6 0	60	32·29	187

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter.	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	GLOUCESTER—(*con.*)						
D	Berkeley (Sharpness New Docks)	W.B.Clegram,Esq.,C.E	5	3 6	50	36·88	175
D	Lechlade	T. Arkell, Esq.	5	0 10	253	32·34	180
D	Minchinhampton (The Close)	Major Pennington	8	1 0	582	39·46	213
D	Cirencester (Claremont Place)	R. Gorton, Esq.	8	1 0	356 T	36·81	219
	,, (,, ,,)	,, ,, ,,	8	2 0	357 T	37·85	219
	,, (,, ,,)	,, ,, ,,	8	0 6	356 T	37·19	219
	,, (,, ,,)	,, ,, ,,	8	11 0	366 T	32·54	219
D	,, (Royal Agricultural Coll.)	H. H. Robinson, Esq.	5	1 0	443 ⅄	33·27	188
D	,, (Further Barton)	Miss Brown	5	1 0	425	36·48	206
D	Stroud (Upfield)	Miss Stanton	5	1 0	226 ⅄	35·16	183
D	Fairford (Hatherop Rectory)	Rev. R. P. Davies	8	1 3	411 ⅄	33·09	186
D	Frampton-on-Severn(SaulLodge)	W.B.Clegram,Esq.,C.E	5	3 0	42 ⅄	33·20	204
D	Coleford (The Coombs)	I. Trotter, Esq.	5	1 0	660	51·34	200
D	Newnham-on-Severn	D. J. Wintle, Esq.	5	0 3	56 ⅄	45·24	159
D	Westbury-on-Severn Vicarage	Mrs. C. J. Jones	5	0 9	62 ⅄	38·64	192
D	Great Barrington [Burford]	J. P. Wakefield, Esq.	8	1 0	416 T	35·94	171
	Northleach (Yanworth)	T. Arkell, Esq.	5	1 0	...	37·30	171
	,, (Sherborne Park) *old g.*	Mr. Scott	5	1 0	405	36·38	123
D*	,, (Hampnett Rectory).	Rev. W. Wiggin	5	1 0	653 ⅄	35·62	185
	Gloucester (Quedgeley House)	W. G. Robinson, Esq.	5	1 0	65 T	34·16	194
D	,, (Birdlip Hill)	A. S. Helps, Esq.	5	1 0	800 B	36·21	198
D	,, (Witcombe Res.)	R. Read, Esq., C.E.	8	3 0	297 ⅄	36·31	178
D	,, (Llanthony Lock)	H.J. Marten, Esq., C.E.	5	1 2	39 ⅄	33·62	188
	,, (Denmark Road)	Dr. Wood	8	1 6	66	32·25	182
D	,, (Lower Barton Street)	W. P. Brown, Esq.	5	1 0	65 ⅄	32·67	182
D	Mitcheldean (Edge Hill House)	W. H. M. Phillips, Esq.	5	1 6	725 ⅄	40·43	194
D	Gloucester (Maisemore Lock)	H.J. Marten, Esq., C.E.	5	1 1	39 ⅄	31·45	224
D	Bourton-on-the-Water	W. C. Coles, Esq., M.D.	5	1 6	435 ⅄	36·01	173
D	Cheltenham (Battledown)	Sir Brook Kay, Bt.	5	0 8	393 ⅄	31·24	187
	,, (Northfield)	W. McLandsboro', Esq.	8	2 0	520	34·06	159
	,, (Hewletts Res.)	,, ,, ,,	8	0 9	400	32·08	159
	,, (Sandford Mead)	,, ,, ,,	5	2 0	210	30·93	148
D	,, (Heath Lodge)	Rev. M. A. Smelt	8	1 0	206	33·61	172
D	,, (Montpellier Lodge)	Rev. Dr. Kynaston	5	1 0	210	32·78	179
D	,, (Southam Villa)	R. Tyrer, Esq.	5	1 0	184 ⅄	32·55	193
	,, (,, ,,) M	,, ,, ,,	5	1 0	184 ⅄	31·43	...
D	Moreton-in-Marsh(Longborough)	W. Arkell, Esq.	5	0 9	...	37·03	192
D	Tewkesbury (Upper Lode)	H.J. Marten, Esq., C.E.	5	1 0	41 ⅄	30·90	180
	,,	W. McLandsboro, Esq.	5	0 9	44	25·90	171
D	,, (Beckford)	F. Slade, Esq., C.E.	8	1 0	120 ⅄	31·17	186
D	Alscot Park [Stratford-on-Avon]	Mr. T. B. Wilson	5	1 3	...	29·50	178
	HEREFORD.						
	Wyastone Leys [Monmouth]	J. M. Bannerman, Esq.	6	1 0	200 B	38·02	192
D†	Ross (The Graig)	H. Southall, Esq.	5	1 0	213 ⅄	38·94	203
	Much Dewchurch (Bryngwyn)	J. Rankin, Esq., M.P.	5	0 10	420 B	38·72	188
	Brockhampton Court	Sir C. R. Lighton, Bart.	3	2 0	350	39·03	...
D	Much Marcle (Caerswall)	T. Charles, Esq.	5	1 0	423 B	35·43	192

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
HEREFORD—(*con.*)						
D Hereford (Fownhope Vicarage)	Rev. T. West	5	1 0	192 B	32·74	148
D Ledbury (Orchardleigh)	M. A. Wood, Esq.	5	3 0	160	34·39	161
,, (Putley Court)	J. Riley, Esq.	5	1 0	280	35·47	178
†Hereford (Hagley Park)	A. Hutchinson, Esq.	5	0 6	300 B	31·59	...
D Ledbury (Colwall)	Mrs. Devas	5	0 10	650 B	37·01	180
D ,, (Canon Frome Vic.)	Rev. M. Hopton	8	1 3	252 T	34·61	175
D Hereford (The Elms)	C. Anthony, Esq.	8	0 6	275 ⅄	33·40	191
,, (Brinsop Vic.)	Rev. W. Elliot	5	1 0	300 T	32·15	174
,, (Burghill) No. 3	T.A.Chapman,Esq.M.D	5	1 0	275	31·66	178
D ,, (,,) No. 2	,, ,,	5	1 0	275	31·67	178
D ,, (,, Portway)	BaldwinLathamEsq CE	5	1 0	...	31·97	176
D ,, (Thinghill, Withington)	H. Higgins, Esq.	5	1 0	200 ?	32·26	185
D Staunton-on-Wye	Rev. H. W. Phillott	8	1 1	255 B	36·94	189
D Hope-u-Dinmore (Hampton Ct.)	J. H. Arkwright, Esq.	8	1 2	212 B	34·04	153
D Kington (Lynhales)	S. Robinson, Esq.	8	1 0	...	39·27	178
D Pembridge (Marston)	H. Langston, Esq.	5	1 5	347	35·05	201
D Leominster (Farm)	H. J. Southall, Esq.	5	1 0	260 ⅄	37·31	208
D Stoke Bliss	Rev. G. E. Alexander	5	1 0	400 B	34·80	180
Wigmore	Rev. E. Barton	5	1 1	...	34·24	188
SHROPSHIRE.						
Dowles [Bewdley]	J. M. Downing, Esq.	5	1 3	162 ⅄	33·40	166
Cleobury Mortimer (Neen Savage)	Rev. F. Burd	5	0 11	367 T	36·92	182
D Ludlow (Bromfield Vicarage)	Rev. W. Selwyn	5	1 0	300 T	37·92	179
D Craven Arms (Stokesay Vicarage)	Rev. J. D. La Touche	5	1 0	371 ⅄	36·35	201
D Burwarton	Rev. A. James	5	1 0	830	44·20	181
North Cleobury (Burf Cottage)	,, ,, ,,	5	...	...	46·07	...
Bishop's Castle (Castle Street)	E. Griffiths, Esq.	5	2 0	720 B	39·82	210
D ,, ,, (More Rectory)	Rev. A. S. Male	5	1 0	640 ⅄	38·63	228
D Much Wenlock (Larden Hall)	Miss F.Rouse Boughton	8	1 3	658 ⅄	38·52	212
D Bridgenorth (Aldenham Park)	H. W. Keary, Esq.	5	3 9	430	34·55	190
Church Stretton (Preen Manor)	A. Sparrow, Esq.	5	1 0	700	36·27	196
D ,, ,, (Woolstaston)	Rev. E. D. Carr	5	1 0	800 ⅄	39·42	213
D Middleton in Chirbury	Rev. W. Brewster	5	1 2	702 ⅄	36·01	209
D Much Wenlock (Willey Park)	T. H. Thursfield, Esq.	5	1 0	502 ⅄	34·09	202
Condover Hall	Mr. G. Close	5	1 0	...	31·44	...
Minsterley (Hampton Hall)	J. Whitaker, Esq.	...	1 0	630	39·39	...
,, (Wallop)	J. E. Severne, Esq.	...	1 6	700 T	39·02	197
D Pontesbury (The Villa)	W. R. Croft, Esq.	8	1 6	...	34·68	175
D Shrewsbury (Onslow Hall)	Col. Wingfield	8	0 5	...	31·94	167
,, (,, ,,) ...M	,, ,,	8	0 3		31·53	...
D Cheswardine (Knighton Res.)	G. R. Jebb, Esq., C.E.	8	0 3	351 ⅄	34·74	214
Oswestry (Park Avenue)	H.T.Wakelam,Esq.C.E	6	1 3	490 ⅄	43·08	...
,, (Hengoed)	Rev. A. R. Lloyd	5	6 0	470 ⅄	43·68	...
Market Drayton (Buntingsdale)	Mrs. Tayleur	5	1 0	276 ⅄	32·42	193
D Adderley Rectory	Rev. A. Corbet	5	0 9	287 B	34·83	194
Whitchurch (Green End)	Messrs. Jones & Co.	12	2 6	...	34·59	...

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
	STAFFORD.							
	Kinver Gram. Schl. [Stourbridge]	E. B. Marten, Esq., C.E.	8	0	6	180 L	31·52	184
	Dennis [Stourbridge]	Mr. C. Webb	8	6	6	270 B	32·79	188
	Netherton (Lodge Farm Res.)	G. R. Jebb, Esq., C.E.	5	1	0	445 T	31·36	192
	Handsworth	G. R. Farncombe, Esq.	5	4	9	529 T	32·83	185
D	Perry Hall [Birmingham]	Mr. G. B. Mitchison	6	3	0	...	33·23	192
	Walsall	E. B. Marten, Esq., C.E.	8	4	0	463 T	35·18	208
	Wolverhampton (Town Hall)	R E W Berrington Esq C E	5	15	6	481 T	32·48	205
D	,, Park	Mr. W. Thomas	5	1	0	430 T	34·48	191
D	Patshull Gardens	Mr. Bayne	8	1	3	400	34·58	173
D	Wolverhampton (Wrottesley)	Mr. E. Simpson	8	1	0	500	33·38	179
	Bloxwich (Sneyd Res.)	G. R. Jebb, Esq., C.E.	5	1	0	507 T	28·42	191
	Hammerwich (Cannock Chase Res)	,, ,, ,,	5	1	0	475 T	28·23	188
	Lichfield Museum	Mr. J. P. Roberts	5	2	0	220 T	33·14	200
D	Weston Park [Shifnal]	Rt. Hon. Earl of Bradford	5	1	6	400 T	32·84	206
D	Brewood (Belvide Res.)	G. R. Jebb, Esq., C.E.	8	1	0	367 T	31·02	146
	Penkridge (Rodbaston)	H. Ward, Esq.	5	1	0	260 ?	32·88	146
D	Burton (Shobnall)	R. W. Abbotts, Esq.	5	6	0	156 T	30·36	182
D	,, (Derby Road)	J. G. Wells, Esq.	5	1	0	151 T	32·74	215
D	,, (Hoar Cross)	F. W. Lycett, Esq.	8	4	0	400 T	34·29	206
D†	Cheadle (The Heath House)	J. C. Philips, Esq.	5	1	0	647 T	36·41	213
D†	,, (Tean Vicarage) *new g.*	Rev. G. T. Ryves	5	1	0	470 T	37·28	207
D	Longton (The Meir)	J. B. Piercy, Esq.	5	1	0	618 T	36·23	198
	Stoke (Stanley Reservoir)	E. B. Smith, Esq., C.E.	5	3	1	550 T	30·84	...
	Etruria	,, ,, ,,	5	4	2	440	35·95	142
D	Burslem	J. E. Worth, Esq., C.E.	8	1	0	555 T	35·53	205
D	Ilam Hall [Ashborne]	Mr. J. McNair	5	1	0	470 T	41·43	185
D	Leek (Wall Grange) *old g.*	J. B. Piercy, Esq.	8	1	0	458 T	38·88	194
D	,, (,, ,,) *new g.*	,, ,, ,,	5	1	0	458 T	38·50	193
	Knypersley [Congleton]	E. B. Smith, Esq., C.E.	5	14	0	500 T	40·33	187
	Leek (Rudyard)	,, ,, ,,	5	12	7	500 T	?27·00	...
	WORCESTER.							
	Blockley	R. B. Belcher, Esq.	5	1	0	472 T	33·94	...
	Northwick Park	Rt Hon Lord Northwick	8	1	6	410 T	33·89	...
	Upton-on-Severn (Willow Bank)	J. S. Cowley, Esq.	5	1	0	...	31·54	184
D	Little Malvern (The Farm)	R. S. Moody, Esq.	8	1	0	500 T	35·60	182
D	Evesham (Lansdowne)	R. Burlingham, Esq.	5	5	0	124 B	27·58	159
D	,, (Bank)	T. J. Slatter, Esq.	5	1	0	103 T	29·52	185
D	Great Malvern (Hornyold Ter.)	H. Sandoe, Esq.	5	0	7	550 L	35·00	163
	,, ,,	J. E. Palmer, Esq.	5	1	0	361 T	36·10	...
	,, ,, (Madresfield Rect.)	Rev. G. S. Munn	5	1	4	124 T	33·18	149
	,, ,, (,, Court)	Mr. W. Crump	8	1	0	135 T	33·69	180
D	Worcester (Diglis Lock)	H. J. Marten, Esq., C.E.	5	1	0	49 T	33·29	193
D	,, (St. George's Square)	G. B. Wetherall, Esq.	5	1	6	56 T	32·46	188
D	,, (Bevere Lock)	H. J. Marten, Esq., C.E.	5	1	1	52 T	31·67	194
D	,, (Hawford Lodge)	Mr. G. Read	5	1	1	...	35·39	191
D	Droitwich (Holt Lock)	H. J. Marten, Esq., C.E.	5	1	1	55 T	32·60	178
D	,, (Ombersley)	Baldwin Latham Esq C E	5	1	0	...	32·05	145

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WORCESTER—(*con.*)						
D Tenbury (Orleton)	T. H. Davis, Esq.	5	0 9	193 ⅄	35·37	202
D Redditch (Prospect Hill)	H. Page, Esq., M.D.	5	1 0	420 T	32·52	197
D Bromsgrove (Stoke Reformatory)	Mr. J. Salter	5	1 3	225 L	30·79	148
D ,, (Tardebigge Res.)	W.B.Clegram,Esq.C.E.	5	3 0	433 T	31·55	184
D Stourport (Lincombe Lock)	H. J. Marten,Esq., C.E.	5	1 0	62 ⅄	33·15	208
,, (Hartlebury)	J. Watson, Esq.	5	2 0	320	32·83	...
,, (Areley Court)	C. Harrison, Esq.	5	1 0	145 T	31·84	211
D Bromsgrove (Upper Bittal Res.)	W.B.Clegram,Esq.C.E.	5	3 0	518 T	35·39	177
D Bewdley (Bark Hill)	Mr. W. Wrather	8	2 0	...	34·18	174
Stourbridge (Pedmore)	E. B. Marten, Esq., C.E.	8	0 11	350 ⅄	34·79	195
,, (Longlands)	,, ,, ,,	8	1 0	260 ⅄	33·37	175
Acocks Green [Birmingham]	H. Grosvenor Hill, Esq.	5	1 0	400	36·59	192
WARWICK.						
D Shipston (Compton Wynyates)	J. Sargent, Esq.	5	3 0	...	34·81	179
Radway (Ivy Lodge)	Rev. G. Miller	5	1 1	530 T	33·07	171
Farnborough Vicarage	Miss Prater	5	1 0	...	31·89	189
Kineton (Fenny Compton)	E. Knott, Esq.	5	4 0	430	31·00	...
Stratford-on-Avon (Avonside)	C. Lucy, Esq.	8	0 8	123 T	27·70	...
D Warwick (Barford Rect.)	Rev. C. Mills	8	0 11	167 ⅄	28·12	176
D ,, (Priory Gardens)	Mr. R. Greenfield	5	4 2	240 ⅄	27·96	150
Leamington (Upper Parade)	J. Barnitt, Esq.	5	0 8	195 ⅄	29·07	177
D Henley-in-Arden (Barrells Park)	T. H. G. Newton, Esq.	5	1 0	300 T	32·46	205
D Kenilworth (Park Hill)	T. G. Hawley, Esq.	8	0 8	300	30·27	178
D ,, (The Spring)	W. Evans, Esq.	5	1 0	312 ⅄	29·43	190
D Rugby School	C. H. Hodges, Esq.	5	1 3	383 T	30·34	196
D Coventry (Ryton on Dunsmore)	The late C. Twamley Esq.	5	1 2	260 T	28·09	196
D ,, (Priory Row)	J. Gulson, Esq.	8	1 2	279 ⅄	29·33	194
,, (Middlesboro' Terrace)	Miss Merry	5	1 0	345 ⅄	27·09	192
D ,, (Coundon)	Colonel Caldicott	5	1 0	370 T	30·24	186
D Willey Rectory [Lutterworth]	B. P. M. Payler, Esq.	8	1 0	350 T	30·93	182
D Birmingham (Sheldon Rectory)	Mrs. Jones Bateman	...	...	...	33·48	178
D† ,, (Botanic Gardens)	Mr. Latham	5	5 2	505 T	31·58	196
D ,, (The Crescent)	J. J. Gilbert, Esq.	5	21 0	495 T	31·05	174
,, (,, ,,)	,, ,, ,,	5	7 0	480 T	32·70	174
D Atherstone	Baldwin Latham Esq CE	5	1 0	286 ⅄	31·90	179

DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTER.						
D Ashby Magna	Rev. Canon Willes	5	1 6	438 T	28·83	188
†Fleckney	J. B. Putt, Esq.	5	1 0	411 T	29·95	...
D†Kibworth Beauchamp	T. Macaulay, Esq.	5	2 6	355 T	29·57	186
Market Bosworth (Osbaston Hall)	Mr. J. Gregory	5	1 0	...	33·58	175
D†Leicester (Town Museum)	J. C. Smith, Esq.	5	1 0	238 T	30·79	188
D ,, (Town Hall Square)	J. Gordon, Esq.	9	1 7	212 ⅄	33·78	183
D Little Orton [Atherstone]	Baldwin Latham Esq CE	5	1 0	...	30·51	164

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	LEICESTER—(*con.*)						
D†	Thornton Reservoir	F. Griffith, Esq., C.E.	10	2 8	370	30·67	158
	Barkby	Rev. E. N. Pochin	8	0 4	221 ⅄	30·92	182
D	Thurcaston (Cropston)	F. Griffith, Esq., C.E.	8	1 0	...	31·73	188
	Swithland (Roecliffe)	,, ,, ,,	...	.	...	30·77	193
	,,	,, ,, ,,	...	...	...	30·65	191
	,, (The Brand)	,, ,, ,,	...	...	...	31 03	195
	,, (Broombriggs Hill)	,, ,, ,,	...	...	...	27·64	198
D	Rotherby Hall	J. Hames, Esq.	5	1 0	250	28·98	197
D	Melton Mowbray (ThorpeArnold)	Rev. J. S. Swift	8	2 3	336 ⅄	30·10	181
	Loughborough (Nan PantonRes.)	A. W. Cross, Esq., C.E.	8	2 11	269 ⅄	30·13	184
	,, (,, ,,)M	,, ,, ,,	5	2 0	269	30·00	...
	,, (Cedar Cottage)	J. Giles, Esq.	5	0 9	327 T	31·66	...
D	,, (Victoria Street)	W. Berridge, Esq.	5	0 10	169 B	28·93	190
	,, (,, ,,)	,, ,, ...	8	0 11	169 B	28·89	190
D	Melton Mowbray (Coston Rect.)	Rev. A. M. Rendell ...	5	1 0	362 ⅄	29·18	190
D	Waltham-le-Wolds	Mr. E. Ball	5	1 6	532 ⅄	33·15	179
	Harston [Grantham]	F. Beasley, Esq.	...	1 3	...	28·95	...
D†	Belvoir Castle	W. Ingram, Esq.	8	1 0	237 T	29·83	209
	RUTLAND.						
D	Uppingham (West Deyne)	Rev. G. H. Mullins ...	8	1 6	485 ⅄	27·88	189
D	Ketton Hall [Stamford]	F. Coventry, Esq.	5	1 0	130 B	30·01	216
D	Tolethorpe Hall [Stamford]	C. O. Eaton, Esq.	8	0 8	160 T	27·71	161
	Burley-on-the-Hill	Mr. W. Temple	8	1 0	506	32·53	148
	Oakham (Greetham)	Rev. C. A. Holmes ...	5	0 8	377 ⅄	28·88	164
D	Market Overton	Miss H. E. G. Wingfield	8	0 11	475 T	30·02	220
	LINCOLN.						
	Stamford (Barn Hill Ho.)	Dr. Newman	5	1 0	116 T	27·71	...
	,, (Castle Cottage)	T. Booth, Esq.	5	1 0	...	30·63	...
D	,, (Northfields)	Mr. W. Hayes	5	1 0	166 ⅄	30·30	147
D*	Bourne (Wytham-on-the-Hill)	A. C. Johnson, Esq. ...	5	1 0	167 ?	26·80	135
	Long Sutton (Tydd Gote)	Mr. J. Tilson	5	4 0	...	27·59	155
	Spalding (Pode Hole)	Mr. A. Harrison	12	0 3	20 ⅄	30·25	...
	Grantham (Saltersford)	H. Preston, Esq.	5	0 7	188 ⅄	30·57	171
	,, (Heydour Vicarage)	Rev. G. F. Deedes	5	1 6	244 T	27·02	164
D	Boston (Grand Sluice)	J. E. Williams, Esq., C.E	8	6 0	22	26·78	190
	Sleaford	H. Kirk, Esq.	8	1 3	59 ⅄	23·80	155
	Leake (Lade Bank Engines)	J. E. Williams, Esq., C.E	...	...	...	27·72	149
D	Wrangle	A. Spurr, Esq.	5	1 0	10	28·52	166
D	Stubton [Newark]	G. Nevile, Esq.	5	4 6	94 T	29·87	192
	Sleaford (Bloxholm)	Mr. D. Lumsden	5	1 6	80	27·34	...
D	Navenby	Rev. J. Hays ...	8	1 2	215 T	27·21	193
D	Skegness	H. V. Tippet, Esq. ...	8	1 6	10 L	25·26	...
	Horncastle (Miningsby)	W. H. Wheeler, Esq. C.E	5	0 6	135 ⅄	28·96	127
D	Spilsby	Dr. J. W. Walker	5	1 0	300	29 63	185
D	,, (Partney)	Rev. T. Owston	5	1 0	73	30·52	185
D	,, (Hagworthingham)	Mr. R. Wright	5	1 1	200	32·48	165

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
LINCOLN—(*con.*)						
D Horncastle (Bucknall)	W. Carter, Esq.	5	1 0	50	27·30	158
,, (Queen Street)	H. George, Esq., M.D.	5	1 0	100	28·83	...
Lincoln (Branston)	A.S.LeslieMelville, Esq	...	...	...	28·98	155
D† ,, (Boultham)	Mr. F. Terrill	5	1 0	18 ⅄	29·78	153
† ,, (St. Botolphs)	J. H. Teague, Esq.	5	1 3	25 ⅄	25·80	...
,, (St. Catherine's)	,, ,, ,,	5	5 6	33 ⅄	28·40	...
D ,, (Doddington)	Rev. R. E. Cole	5	1 2	92 ⅄	26·42	183
,,	M. S. & L. R. Co.‡	9	3 6	26	24·57	...
,, (D'Isney Place)	A.H.LeslieMelvilleEsq	4	1 0	215 L	26·41	140
D ,, (Brayford Wharf)	Mr. J. W. Horton	5	5 8	28 ⅄	26·43	192
,, (Tentercroft Street)	W. F. Norton, Esq.	8	1 · 3	22	26·14	...
,, (The Quarry)	R. Swan, Esq.	8	1 5	178 T	24·35	173
,, (Skellingthorpe Hall)	A. B. Coupland, Esq.	5	1 1		25·19	153
D Alford (The Burial Ground)	Mr. E. Hodgson	5	1 0	29 ⅄	28·69	196
D ,, (The Sycamores)	J. E. Mason, Esq.	8	1 3	22 T	28·42	195
,, (Sutton-by-the-Sea)	F. Lowry, Esq., C.E.	5	1 0	9 ⅄	23·97	132
Gate Burton	M. S. & L. R. Co.	9	3 6	96	25·70	152
†Louth (Gospelgate)	T. W. Wallis, Esq.	5	6 0	111 ⅄	29·54	176
† ,, (Westgate)	Dr. F. Fawssett.	5	0 9	120 ⅄	30·02	181
Market Rasen (Owmby Rectory)	Rev. T. S. Raffles	5	1 0	78 T	25·06	188
D ,, ,,	Mr. W. B. Jevons	5	0 8	...	28·53	168
,, ,,	M. S. & L. R. Co.	9	...	100	28·17	...
Gainsborough	,, ,, ,,	9	...	76	25·87	156
Stockwith	,, ,, ,,	9	3 6	21	26·87	137
Caistor	Rev. R. Thomas	5	0 9	283 ⅄	29·49	166
Wroot Engine	A. L. Peace, Esq., C.E.	10	6 0	...	25·74	158
Brigg	M. S. & L. R. Co.	9	3 6	16	19·83	197
D ,,	A. Atkinson, Esq., C.E.	8	1 2	10 T	28·24	190
D Grimsby (Aylesby)	S. McAulay, Esq.	5	1 6	...	28·67	181
Riby	Mr. Freeman	5	3 0	...	31·52	162
Grimsby	M. S. & L. R. Co.	9	15 0	42	23·14	142
D Ulceby (Limber Grange)	T. Hopkins, Esq.	5	1 6	210 B	31·59	196
Barnetby	M. S. & L. R. Co.	9	3 6	51	28·54	154
N.LevelEngine[ThorneDonc'st'r]	A. L. Peace, Esq., C.E.	5	2 3	...	27·96	180
Crowle (Keadby)	M. S. & L. R. Co.	9	...	10	23·23	152
Appleby	Rev. J. E. Cross	5	0 9	60 L	27·15	158
Ferriby Sluice	,, ,, ,,	5	0 9	10	26·79	...
New Holland	M. S. & L. R. Co.	9	3 6	18	21·67	...
NOTTS.						
Normanton on Soar [Loughboro']	T. W. Rowland, Esq.	5	0 0	118	28·52	...
D Kingston Hall [Loughborough]	Mr. J. W. Bayne	5	2 0	...	26·91	180
D Thrumpton Hall	Mr. Geddes	5	1 0	111 ⅄	28·29	194
Cropwell Bishop (CropwellGrove)	H. Smith, jun., Esq.	5	1 1	160 T	28·28	148
D Stapleford Hall	Col. Ichabod Wright.	5	1 0	132 ⅄	30·08	178
D Nottingham (Beeston Fields)	G. Fellows, Esq.	5	0 9	206 ⅄	32·62	192
D ,, (Park Hill)	H. F. Johnson, Esq.	8	3 8	280	30·64	190

‡ Kept for the Canals Department of the Manchester, Sheffield, and Lincolnshire Railway Company.
Returns supplied by G. Taylor, Esq.

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above SeaLevel feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
NOTTS—(*con.*)							
D Nottingham (The Park)	LateM.O.TarbottonEsq	8	1	0	162 ⩛	31·76	179
,, (Waterworks Off.)	,, ,, ,,	8	48	0	172 ⩛	28·56	171
D ,, (StokeBardolphSewFrm)	Mr. J. Avis	8	6	7	...	27·62	134
D ,, (Strelley Hall)	T. L. K. Edge, Esq.	8	1	0	396 ⩛	32·36	199
,, (,, ,,) M	,, ,, ,,	5	1	0	396 ⩛	32·29	...
D ,, (Mapperley Hill)	E. Powell, Esq.	8	1	0	400	29·59	156
D ,, (Gedling)	Rt. Hon. Lord Forester	5	2	6	137 T	31·08	192
,, (Sherwood)	F. Rayner, Esq., C.E.	8	1	3	250	30·88	172
D ,, (WoodthorpeGrange)	H. Ashwell, Esq.	8	1	3	270 ?	31·67	193
Eastwood Colliery	Mr. E. Lindley	5	38	0	283 T	26·62	186
D ,,	,, ,, ,,	5	1	0	245 T	32·35	196
D Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.	5	1	0	200 ?	31·05	188
Newark (East Stoke)	Miss Stanton	5	1	3	...	30·69	...
D Annesley Park	Mr. A. Young	8	2	0	560	31·40	150
Southwell (Oxton)	LateH.Sherbrooke,Esq.	5	0	9	182	31·95	207
D Newark (Kirkgate)	Mr. A. Read	5	0	8	50	26·66	170
D Mansfield (Market Place)	Mr. W. Jackson	5	1	0	360 T	35·52	207
D Ollerton (Thoresby Gardens)	Mr. A. Henderson	8	4	0	175	30·01	174
D Tuxford (Grammar School)	J. N. Dufty Esq.	5	1	0	220 T	29·31	182
Worksop	M. S. & L. R. Co.	9	3	6	127	26·97	166
D ,, (Osberton)	S. A. Woods, Esq.	5	3	10	...	31·30	...
Retford	M. S. & L. R. Co.	9	3	6	52	24·94	166
D Worksop (Hodsock Priory)	H. Mellish, Esq.	8	1	0	56 ⩛	27·82	191
,, (,, ,,) M	,, ,,	5	1	0	56 ⩛	26·99	...
D The Gardens [Bawtry Hall]	L. T. Baines, Esq.	5	1	0	31 T	26·98	165
D Hesley Hall [Tickhill]	B. I. Whitaker, Esq.	8	1	0	61 T	28·38	193
DERBY.							
D Stapenhill [Burton]	R. W. Abbotts, Esq.	5	4	0	170	29·13	206
,, [,,]	A. J. Brown, Esq.	5	1	0	...	31·74	...
D Bretby Park [,,]	Mr. G. Brunt	5	4	6	405 T	33·53	190
D Melbourne	Miss Tasker	5	0	5	...	32·75	183
Derby (Findern)	Rev. B. W. Spilsbury.	5	0	9	192 B	29·13	...
D ,, (Elvaston)	H. Chambers, jun. Esq	5	1	0	...	30·87	193
D Mickleover Manor	Mr. J. Campbell	5	2	0	200	32·40	158
D Derby (Christ Church Vic.)	Rev. W. H. Askwith.	5	1	0	265 ⩛	31·38	169
,, (Duffield)	Mr. W. Bland	5	1	0	250 T	32·17	186
D ,, (Holmside, Hazelwood)	A. B. Hambly, Esq.	5	1	3	500 T	33·49	179
D Belper (Northfield)	J. Hunter, Esq., C.E.	8	0	8	225	35·27	194
D Wirksworth (Holloway)	R. Wildgoose, Esq.	5	1	0	450 T	41·41	217
†Matlock (Willersley Gardens)	Mr. Barlas	6	1	3	440 T	?47·63	...
† ,, Bath	Mrs. Chadwick	5	1	6	500 T	39·74	...
Stretton (Lindway Res.)	R. G. Coke, Esq., C.E.	5	4	3	447 ⩛	24·08	159
D Stuffynwood Hall [Mansfield]	J. Paget, Esq.	5	1	3	389 T	31·24	190
Chesterfield (Hardwick Hall)	Mr. Wilson	8	2	6	594 T	37·04	199
D ,, (Grassmoor Colliery)	E. Bromley, Esq.	5	19	10	370	30·26	196
Chatsworth Gardens	O. Thomas, Esq.	8	5	0	404	37·70	216
Chesterfield(Brampt'nS.Thomas)	Rev. J. M. Mello	5	3	0	314 T	35·77	...

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell
DERBY—(*con.*)							
D Chesterfield (Gas Works)	C. E. Jones, Esq.	5	1	0	279	35·57	194
,,	M. S. & L. R. Co.	9	3	6	248	34·50	184
D ,, (Linacre Reservoir)	C. E. Jones, Esq.	8	3	6	490 ⅄	34·74	180
,, (Tapton House)	C. Markham, Esq.	8	1	3	...	34·13	149
,, (Brimington Hall)	R. G. Coke, Esq., C.E.	5	1	4	408 ⅄	35·96	214
D†Buxton (Devonshire Hospital)	J. C. Thresh, Esq.	5	1	0	986 ⅄	47·43	204
†Stony Middleton	Rev. U. Smith	5	4	0	692 B	32·68	173
†Comb's Moss	M. S. & L. R. Co.	9	3	6	1669 T	49·39	...
† ,, Reservoir	,, ,, ,,	9	3	6	710 T	40·37	240
†Chapel-en-le-Frith	,, ,, ,,	9	3	6	965 T	42 38	216
†Killamarsh (Norwood)	,, ,, ,,	9	3	6	238 T	30·91	140
Hathersage (Bamford)	W. C. Moore, Esq.	...	1	0	530	38·11	...
†Glossop (Spire Hollin)	F. Hawke, Esq.	10	0	10	612 T	46·53	...
Woodhead Station	M. S. & L. R. Co.	9	3	6	878 T	59·93	217

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE.							
Crewe (Wistaston Road)	E. Pillow, Esq., C.E.	8	1	2	145	23·93	147
Chester (Pulford Hall)	The late R. Massie, Esq.	5	3	0	60 ⅄	31·04	196
o Congleton (Buglawton Vic.)	Rev. W. Besant	8	5	0	347 T	34·47	169
Bosley Reservoir	M. S. & L. R. Co.	9	3	6	590 T	35·69	209
,, Minns	,, ,, ,,	9	3	6	1210 T	38·86	219
Macclesfield (Wincle)	E. B. Smith, Esq., C.E.	5	3	0	500	45·43	191
D Chester (Rowton Grange)	T. R. Fleming, Esq.	5	1	0	164 B	32·89	185
D ,, (Christleton Hall)	Mr. T. Weaver	5	1	2	142 ⅄	34·24	179
D ,, (Waterworks)	J. Dugdale, Esq.	5	0	10	85 ⅄	32·07	197
† ,, (Lead Works)	A. O. Walker, Esq.	5	1	0	65 T	33·67	193
,, (,, ,, Field)	,, ,, ,,	5	1	2	67 T	33·74	198
D† ,, (Newton Nurseries)	J. Dickson & Sons	5	1	0	62 ⅄	36·34	215
Middlewich (Bostock Hall)	Col. France Hayhurst	5	2	0	157 ⅄	35·60	161
D Siddington (Thornycroft Hall)	Mr. J. Harrison	5	3	0	377	36·69	210
D Macclesfield (The Park)	Mr. J. Dale	5	1	0	501 T	41·64	208
D Chelford (Astle Hall)	G. Dixon, Esq.	5	1	0	250 T	35·96	188
,, (,, ,,) M	,, ,, ,,	8	1	0	250 T	35·35	...
D Northwich (Highfield)	L. B. Wells, Esq., C.E.	8	3	4	118 ⅄	35·24	209
,, (Winnington)	H. Neumann, Esq.	8	1	3	120 T	34·42	197
D ,,	Messrs Brunner Mond & Co	5	3	8	110 ⅄	33·31	206
D*Neston (Hinderton)	Reginald Bushell, Esq.	5	1	0	215 ⅄	32·17	215
* ,, (,,) M	,, ,, ,,	8	1	0	215 ⅄	32·49	...
D Frodsham (Foxhill)	J. Reynolds, Esq.	5	0	10	230 T	37·76	201
,, (Dunsdale)	J. Simpson, Esq.	5	1	1	206	35·61	...
Knutsford (Heath Side)	W. Tyrer, Esq.	5	1	0	210	38·61	198
Bollington (Spond's Hill)	M. S. & L. R. Co.	9	3	6	1279 T	38·89	...
†Whaley	,, ,, ,,	9	3	6	602 T	44·70	223
D Disley	Miss Withington	5	1	0	620 T	40·88	221
D Stockport (Cheadle Hulme)	R. A. Grundy, Esq.	5	1	0	196 T	33·46	190

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which 01 or more fell.
				ft. in.	feet.	inches.	
	CHESHIRE—(*con.*)						
D	Runcorn (Weston Point)	L. B. Wells, Esq., C.E.	4	2 4	18	42·19	169
D	Hill Cliffe [Warrington]	J. Marson, Esq.	5	1 0	159 ft	40·11	200
	Lymm (Agden Hall)	Mr. J. Hewitt	5	1 0	190	29·37	...
	Bowdon (The Firs)	R. Swindells, Esq., C.E.	5	0 8	215 ft	39·42	...
D	Thelwall (Highfields)	T. G. Rylands, Esq.	5	1 0	118 ft	36·17	199
	,, (,,) M	,, ,, ,,	5	1 0	118 ft	36·19	...
D	,, (Massey Hall)	L. G. Rylands, Esq.	5	1 0	100 B	37·37	202
D	,, (Millington House)	L. W. Reynolds, Esq.	5	1 0	85	39·02	205
D	Lymm (Statham Lodge)	P. Stubs, Esq.	5	1 0	42 ft	36·65	199
	,, (,, ,,) M	,, ,,	5	1 0	42 ft	36·95	...
	Altrincham (Norman's Place)	A. Griffith, Esq.	5	1 0	150 T	44·86	165
	,, (Barrington House)	J. Newton, Esq., C.E.	8	3 0	105 ft	39·70	...
†	Birkenhead (Bidstone Obs.)	J. Hartnup, Esq.	8	1 0	182 T	34·62	217
	Northenden (Wythenshawe)	T. E. Tatton, Esq.	5	1 0	114 T	36·61	178
	Marple Top Lock	M. S. & L. R. Co.	9	3 6	543 T	42·34	185
	,, Aqueduct	,, ,, ,,	9	3 6	321 T	36·16	195
	Godley Reservoir	J. F. Bateman, Esq. FRS.	12	...	500	37·05	...
	Newton	M. S. & L. R. Co.	9	3 6	396 T	31·78	180
	Mottram (Hill End)	,, ,, ,,	9	3 6	680 T	47·90	209
	,, (Matley's Field)	,, ,, ,,	9	3 6	399 T	39·87	222
	Arnfield Reservoir	J. Sidebottom, Esq.	7	...	550	39·51	...
	,, ,,	J. F. Bateman, Esq. FRS.	...	...	550	41·99	...
†	Rhodes Wood Reservoir	,, ,, ,,	12	1 0	520	47·30	...
†	Torrside Reservoir	,, ,, ,,	12	1 6	680	48·91	...
	Staleybridge (Swineshaw)	,, ,, ,,	8	3 0	884 ft	53·71	...
†	Woodhead Reservoir	,, ,, ,,	12	0 10	660	53·76	...
	LANCASHIRE.						
D	Garston (Grassendale Park)	Miss E. C. Abraham	5	1 0	35 T	34·77	235
D	Aigburth (Kelton)	J. Sing, Esq.	5	1 0	135 T	34·70	201
	Woolton (Roseleigh)	A. Tate, Esq.	12	4 6	170 B	39·94	...
D	Warrington (Arpley)	T. Longdin, Esq.	10	10 3	33 ft	35·13	197
	,, (Cemetery)	,, ,, ,,	10	1 0	32 ft	35·29	...
	Liverpool (Grove Park)	J. R. Darsie, Esq.	3	6 0	160	34·32	197
D	,, (Hope Street)	G. Jevons, Esq.	5	1 0	150	34·76	212
D	,, (St. James's Mount)	Rev. W. Banister	5	1 1	150 ft	35·62	190
D	Walton (Breeze Hill)	W H Andersson, jun, Esq	5	1 11	119 ft	35·87	230
	,, (,, ,,)	,, ,, ,,	8	1 2	119 B	36·17	230
D	Manchester (Withington) No. 1	J. King, jun., Esq.	5	1 0	110 T	36·14	185
D	,, (,,) No. 2	,, ,, ,,	5	1 0	110 T	36·70	185
D	,, (,,) No. 3	,, ,, ,,	8	1 0	110 T	35·73	185
D	,, (Stretford)	H. Royle, Esq., C.E.	5	1 0	86 ft	37·68	189
	Denton Reservoir	J. F. Bateman, Esq. FRS.	...	..	324 T	36·41	..
	Gorton	,, ,, ,,	...	...	263 T	35·72	...
D	Manchester (Plymouth Grove)	J. F. Roberts, Esq.	5	4 2	150 ft	39·36	194
D	,, (Ardwick)	J. Casartelli, Esq.	9	3 0	140 ft	39·61	194

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell
				ft. in.	feet.	inches.	
	LANCASHIRE—(*con.*)						
	Manchester (Embden Street) ...	J. Hart, Esq.	5	6 6	112 T	42·39	186
†	,, (Piccadilly)	M. S. & L. R. Co.	9	40 0	194 T	34·56	179
	,, (Fairfield)	,, ,, ,, ...	9	6 0	312 T	43·76	192
	,, (St. Bede's College)	Rev. L. C. Casartelli...	8	82 0	176	33·14	...
	Eccles (Worsley Hall)	Mr. W. B. Upjohn ...	8	10 0	80 L	35·57	164
	Blundellsands (Park Corner) ..	T. M. Reade, Esq. C.E.	5	1 0	35 ⅄	36·11	...
D	Manchester (Newton Heath).....	J. Warren, Esq..... ...	5	1 0	242 ⅄	42·40	224
D	,, (Cheetham Hill)	W.B.Worthington,Esq	5	0 11	255	39·42	203
	Ashton (Waterhouses)	M. S. & L. R. Co.	9	3 6	345 T	42·77	197
	*Maghull	I. Roberts, Esq.....	5	1 0	68 ⅄	37·08	199
	Prestwich Asylum.....	The Meteor. Council ...	8	1 0	295	42·05	212
	,, Reservoir	J.F.Bateman,Esq.FRS.	...	...	347 T	38·69	...
	Oldham (Gas Works)	,, ,, ,, ...	5	4 0	600 T	43·54	...
D	Wigan Waterworks	W. Bolton, Esq.	8	1 6	225 T	39·43	204
	Bolton-le-Moors (The Folds) ...	W. H. Watson, Esq....	10	3 6	286 T	47·17	...
	,, (Heaton)	R.H.Swindlehurst,Esq.	6	1 3	500	42·80	232
D	,, (,,)	J. S. Holdsworth, Esq.	10	3 6	497 ⅄	47·12	212
D	,, (Hurst Bank)...	J. Watkins, Esq.	5	3 1	442 ⅄	47·83	220
	,, (New Road, Halliwell)	W. Tyson, Esq.....	5	1 6	470 B	50·93	216
	,, (Moss Bank) ...	R. H. Ainsworth, Esq..	8	1 3	...	51·55	176
	,, (Smithills Hall)	,, ,, ,, ...	8	1 4	507 T	46·30	172
	Bury (Gin Hall)	T. Rigby, Esq.	8	1 0	475	48·98	157
†	Milnrow (Piethorne Kitcliff)	J.F.Bateman, Esq. FRS	5	4 0	767 T	34·91	...
	,, (,, Coldgreave)	,, ,, ,, ...	5	4 2	894 T	45·32	...
D	Rochdale (Park Observatory) ...	Dr. Henry	8	0 8	472	58·10	202
D	,, (Fieldhead).....	S. S. Platt, Esq., C.E..	8	6 4	486 ⅄	45·31	194
D	,, (Stone Hill)	Miss Petrie	5	1 6	500	55·72	205
D	Ormskirk (Rufford)	J. Porter, Esq.	5	0 8	38 T	37·21	205
D	Bolton (Belmont)	R.H.Swindlehurst,Esq.	6	0 9	800	63·20	235
	Rochdale (Nayden Dane)	J. Diggle, Esq., C.E....	5	1 6	900 T	43·42	...
D	,, (Facit)	T. S. Smithson, Esq....	5	0 6	855	58·51	230
	Southport (Hesketh Park)	J.Baxendell, Jun., Esq.	5	2 8	23 ⅄	41·60	201
	Entwistle	R.H.Swindlehurst,Esq.	7	1 0	700	54·70	245
	Blackstone Edge (Windy Bank)	Rochdale Canal Compy*	10	1 6	600	36·80	...
	,, ,, ...	,, ,, ,, ...	10	1 9	1225	40·40	...
	,, ,, (Canal Summit)	,, ,, ,, ...	10	1 11	700	42·70	...
	,, ,, (Chelbourn) ...	,, ,, ,, ...	10	1 3	800	49·70	...
	,, ,, (Lenches)	,, ,, ,, ...	10	1 9	800	42·80	...
	,, ,, (Calf Lee).....	,, ,, ,, ...	10	1 6	960	43·20	...
D	Chorley (Whittle-le-Woods) ...	Theodore J. Hare, Esq.	5	2 6	265 T	42·58	198
	Haslingden (Holden Wood).....	T. Rigby, Esq.	8	1 0	670	52·97	153
	,, (Calf Hey) .....M	,, ,, ...	8	1 0	800	56·11	153
	Chorley (Withnell Hall)	J. Shackleton, Esq. ...	5	0 6	545	45·39	...
	Over Darwen (Sunnyhurst Hey).	T. Duxbury, Esq.	8	2 0	915 T	41·79	171
D	,, ,, (St. James's Vic.).	Rev. W. H. Blamire ...	5	1 0	564 ⅄	51·48	199

* Returns supplied by C. R. Dykes, Esq.

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
LANCASHIRE—(*con.*)							
Over Darwen (Hoddlesden Res.)	J.B.McCallum Esq., C.E	8	4	0	680	54·43	210
,, ,, (Daisy Green)	,, ,, ,,	8	1	0	969 ⊼	49·07	168
,, ,, (Pickup Bank)	,, ,, ,,	8	1	0	720 ⊼	50·84	168
D† The Hall [Todmorden]	H. C. Taylor, Esq. M.D	5	1	0	420 ⊼	58·28	209
Blackburn (Guide Reservoir)	J.B.McCallum Esq., C.E	8	1	0	650	40·16	196
D Oswaldtwistle Waterworks	R. N. Hunter, Esq.	6	0	6	635	52·46	188
D Lytham (Woodville Terrace)	S. Stott, Esq.	8	2	1	...	40·17	243
,, (Clifton Square)	Dr. Fisher	8	0	5	27	39·20	214
Blackburn (Pleasington)	J.B.McCallum Esq., C.E	8	2	6	232 ⊼	35·12	...
,, (Witton)	,, ,, ,,	8	2	6	315 ⊼	43·40	196
† ,, (Store Yard)	,, ,, ,,	8	30	0	373 ⊼	37·34	199
,, (Water Works Office)	,, ,, ,,	8	60	0	436 ⊼	31·12	177
,, (Pumping Station)	,, ,, ,,	8	6	0	610 ⊼	46·84	192
Accrington (Warmden Reservoir)	R. Crossley, Esq.	8	1	9	650 T	48·41	134
D ,, (Washington House)	E. Knowles, Esq.	5	30	0	530 ⊼	44·16	187
,, (Milnshaw Grounds)	Mr. Hargreaves	5	1	6	464 ⊼	46·81	185
Preston (Corporation Offices)	H. Reah, Esq.	8	16	0	123	40·92	185
†Rawtenstall (Clough Bridge Res.)	T. Rigby, Esq.	8	1	0	900 ⊼	50·34	229
Burnley Waterworks †Causeway Side	W. Williamson, Esq.	8	2	0	1116	47·12	...
Burnley Waterworks †Sheddin	,, ,, ,,	8	2	0	960	46·96	...
Burnley Waterworks †Cant Clough, S. Side	,, ,, ,,	8	2	0	900	48·13	225
Burnley Waterworks † ,, ,, N. Side	,, ,, ,,	8	2	0	900	45·87	225
Burnley Waterworks †Rams Clough Head	,, ,, ,,	8	2	0	1260	46·01	...
D Huncoat (Burnley Road Res.)	C. Harrison, Esq.	9	1	6	620 ⊼	46·10	197
Clayton-le-Moors (Oakenshaw)	J. H. Calvert, Esq.	5	10	0	388 T	44·65	131
† Burnley (Yorkshire Street)	W. Williamson, Esq.	8	30	0	420 ⊼	44·15	213
† ,, (Swinden, Upper)	,, ,, ,,	8	12	0	820 ⊼	48·57	226
† ,, (,, Lower)	,, ,, ,,	8	2	0	745 ⊼	50·24	226
† ,, (Extwistle Moor)	,, ,, ,,	8	2	0	1310 T	53·61	...
,, (Gawthorpe Hall)	Sir U.K.Shuttleworth Bt	8	1	3	316 T	39·13	127
D Preston (Haighton)	J. J. Myres, Esq., C.E.	5	1	2	255 ⊼	46·81	203
Alston	H. Reah, Esq.	8	1	2	320 ⊼	43·01	...
Blackpool (South Shore)	G. Sharples, Esq.	10	1	8	29 T	41·36	...
D ,, (Arnold House)	T. Ward, Esq.	5	1	0	32 ⊼	41·19	198
Kirkham (Weeton)	J. Bradley, Esq.	10	1	0	95 T	43·85	...
Whalley (Sabden)	J. H. Calvert, Esq.	5	2	6	500	46·61	161
Nelson (Coldwell Reservoir)	J. Newton, Esq., C.E.	8	2	0	950	33·98	...
D Eccleston (Elswick Lodge)	S. King, Esq.	10	1	4	55 T	41·35	212
,, (,, ,,)	,, ,, ,,	5	1	0	55 T	42·85	...
D Stonyhurst College	Rev. S. J. Perry, F.R.S.	11	1	0	376 ⊼	52·88	206
,, ,,	,, ,, ,,	11	2	0	377 ⊼	52·03	213
,, ,, M	,, ,, ,,	11	1	0	376 ⊼	52·41	...
Preston W. Works. Knowle Green	H. Reah, Esq.	8	1	2	400 T	41·86	...
Preston W. Works. Loud-scales	,, ,,	8	1	2	400 T	47·84	...
Preston W. Works. Spade Mill	,, ,,	8	1	2	400 T	44·07	...
Preston W. Works. Jeffrey Hill	,, ,,	8	1	2	900 T	49·90	...
St. Michael's-on-Wyre No. 1 M	Rev. P. J. Hornby	5	1	0	26 ⊼	43·43	...
D ,, ,, ,, No. 2	,, ,, ,,	5	1	0	26 ⊼	43·47	199

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
LANCASHIRE—(*con.*)						
D Beaton Fell (Barnsfold)	J. J. Myres, Esq., C.E.	5	1 6	506 ⩛	51·23	221
,, (,,) ....M	,, ,, ,,	5	1 6	506 ⩛	51·49	...
D Garstang (Calder Mount)	C. Wilson, Esq.	5	10 0	120 T	41·81	221
Clitheroe (Downham Hall)	R. Assheton, Esq.	10	1 6	464 ⩛	46·74	...
D Garstang (Vale House)	J. Jackson, Jun., Esq..	6	4 3	455 ⩛	48·79	219
,, (Barnacre Reservoir)...	J. Bradley, Esq.	10	1 0	617 ⩛	51·75	...
,, (Grizedale)	,, ,, ,,	10	1 0	519 T	49·43	...
D Wyresdale (Abbeystead)	A. Creer, Esq., C.E.	8	1 0	366 T	51·62	189
,, (Old Gauge Basin)...	,, ,, ,,	8	1 0	963 T	49·95	...
,, (Wardstone)	,, ,, ,,	8	1 0	1440 T	60·95	...
Quernmore (Brow Top)	,, ,, ,,	8	1 0	552 T	50·11	...
Lancaster (Southfield)	W. Roper, Esq.	12	3 6	114 ⩛	49·57	222
,, (Escowbeck, Caton)...	A. Greg, Esq.	12	3 0	150 T	48·25	143
Hest Bank	T. Ransome, Esq.	5	2 0	58 T	45·45	197
Melling (Hornby Castle)	Major Foster	8	1 8	100 T	?35·17	139
Barrow-in-Furness	W. Fergusson, Esq. ...	11	1 6	36 ⩛	49·89	192
D ,, ,, (CavendishPk)	W. S. Whitworth, Esq.	8	1 0	60 ⩛	47·30	215
D Ulverston (Urswick)	Rev. R. B. Billinge ...	5	3 0	...	53·55	214
Cartmel (Flookburgh)	T. R. Croasdale, Esq...	5	2 7	70 B	54·00	...
† ,, (Holker)	Mr. W. Fox	8	4 8	155 ⩛	55·86	205
Grange (Nutwood)	Rev. E. Massie	5	2 6	100 B	53·41	228
D Ulverston (Poaka Beck)	Mr. W. Fergusson	11	1 6	512 ⩛	63·34	233
D Cartmel (Pit Farm)	Mr. W. R. Nash	5	1 0	122 T	58·83	225
,, (Broughton Hall)	Col. Ainsworth	5	2 8	210 T	58·31	212
Ulverston (Colton)	Rev. A. Christopherson	5	1 0	226 ⩛	64·71	199
D Blawith	Rev. J. Ashburner	5	0 10	...	70·95	208
D Broughton (Woodland Rectory)	Rev. E. C. Shawfield ...	5	1 4	100 T	68·53	198
Coniston (Torver Rectory)	Rev. T. Ellwood	5	0 6	400 T	77·52	...
D Hawkshead (Grizedale Hall)	W.G.Ainslie,Esq.,M.P.	5	1 0	325	81·00	217
†Monk Coniston Park ....M	V. Marshall, Esq.	10	4 11	150 ⩛	72·30	...
D ,, ,, ,,	,, ,, ,,	5	1 0	305	87·56	...

DIVISION IX.—YORKSHIRE.

WEST RIDING.						
†Sheffield (Brincliffe Rise)	Late A W Chadburn, Esq.	5	1 0	500 T	38·28	200
† ,, (,, Edge)	M. S. & L. R. Co.	9	3 6	336 T	39·36	194
† ,, (Redmires)	E. M. Eaton, Esq., C.E.	10	5 0	1110 T	43·50	219
,, (,,) ..... *weekly*	,, ,,	8	4 0	1100 T	43·13	...
D ,, (Tylecote, Ranmoor)	J. Dixon, Esq.	10	3 6	610 ⩛	42·75	185
D† ,, (Broomhall Park)	D. Doncaster, Esq.	10	2 0	330 ⩛	35·72	196
,, (Rivelin)	E. M. Eaton, Esq., C.E.	10	4 0	564 ⩛	38·82	203
,, (,,) ..... *weekly*	,, ,, ,,	8	4 0	564 ⩛	38·88	...
† ,, (Crookes)	,, ,, ,,	10	2 0	629 ⩛	34·02	207
† ,, (,,) ..... *weekly*	,, ,, ,,	8	2 0	629 ⩛	33·76	...
D ,, (Weston Park)	E. Howarth, Esq.	8	1 0	430 ⩛	36·99	192
D†Rotherham (Ulley Reservoir)	Mr. L. Berry	5	1 0	184 ⩛	27·64	154

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WEST RIDING—(*con.*)						
†Sheffield (Victoria Station)	M. S. & L. R. Co.	9	3 6	188 T	34·48	174
† ,, (Tinsley Locks)	,, ,, ,,	9	...	143 T	28·96	160
Tickhill (Sandbeck Park)	Mr. G. Summers	8	1 0	150 T	29·66	191
†Rotherham (Moorgate Grove)	R. Chrimes, Esq.	5	1 0	262 ⅄	32·09	162
,, (Thrybergh)	B.S.Brundell,Esq.,C.E.	8	1 0	184 ⅄	29·09	150
D Tickhill	G. G. Phillips, Esq.	8	1 0	61 ⅄	30·16	185
D Sheffield (Chapeltown)	Mr. D. Bell	8	5 0	582 L	34·71	201
Doncaster (Firsby)	B.S.Brundell,Esq.,C.E.	8	1 3	189 ⅄	30·80	150
D Bolsterstone (Waldershaigh)	C. M. Wilson, Esq.	8	3 1	950 T	40·65	202
Wortley	M. S. & L. R. Co.	...	...	548	36·20	163
Elsecar	,, ,, ,,	9	...	175 T	33·75	155
D Wath-upon-Dearne (Chapel St).	Dr. Burman	8	1 0	185 ⅄	32·05	191
D ,, (West Melton)	W. Jackson, Esq.	6	0 10	172 T	29·68	...
Worsborough	M. S. & L. R. Co.	9	...	225 T	33·64	184
D Stainborough(Wentworth Castle)	W. Fisher, Esq.	8	2 6	520 T	36·20	189
Doncaster	M. S. & L. R. Co.	9	...	35 T	27·55	182
D ,, (Magdalens)	Mr. J. Howorth	5	5 9	46 T	28·78	149
†Dunford Bridge Station	M. S. & L. R. Co.	9	3 6	954 T	44·60	193
† ,, ,, (Reservoir)	J.F.Bateman,Esq.F.R.S.	12	2 0	1100 T	52·56	...
†Penistone (Carlcotes)	M. S. & L. R. Co.	9	3 6	1075 T	39·63	200
† ,,	,, ,, ,,	9	3 6	717 T	39·61	209
,, (Hazlehead)	,, ,, ,,	9	...	868 T	49·22	206
D ,, (Ingbirchworth Res.)	J. H. Taylor, Esq. C.E.	8	1 3	850 ⅄	43·45	207
Holmbridge (Batley Waterworks)	J.F.Bateman,Esq.F.R.S.	...	...	917	69·60	...
,, (Wessenden Head)	J. Stanway, Esq.	...	...	1270	45·90	...
D Barnsley (Church Street)	Dr. Sadler	5	5 2	350 ⅄	35·49	198
,,	M. S. & L. R. Co.	9	...	175 T	30·45	189
Saddleworth Station	W.B.Worthington, Esq	5	4 2	610 T	45·36	...
†Meltham (Harden Moss)	J. Stanway, Esq.	8	1 2	1212 T	52·99	...
Standedge (Red Brook)	W.B.Worthington, Esq	8	1 8	1100 ⅄	52·14	...
Meltham (Brow Grains)	J. Stanway, Esq.	...	...	900	50·96	...
Denshaw (New Year's Bridge)	J.F.Bateman, Esq. F.R.S.	5	4 0	1012 T	50·35	...
,, (Ready Con Dean)	,, ,, ,,	...	...	1414	45·02	...
D Meltham (Harewood Lodge)	C. L. Brook, Esq.	8	4 10	514 L	44·64	214
† ,, Grange	J. Stanway, Esq.	8	1 2	850 T	43·46	...
Marsden (Deer Hill)	,, ,, ,,	...	...	1149 T	45·02	...
Doncaster (Hatfield)	Mr. T. Askren	5	5 4	...	25·67	152
D ,, (Burghwallis Rec.)	Rev. F. W. Peel	5	1 0	80 T	31·41	203
,, (,, ,,)M	,, ,, ,,	5	1 0	80 T	30·74	...
D Slaithwaite (Blackmoorfoot)	J. Stanway, Esq.	8	1 0	800 T	44·53	229
D Honley (Northgate House)	Miss E. Brooke	5	1 0	350 T	44·09	221
,, (,, ,,)M	,, ,,	5	1 0	350 T	37·13	...
D Wakefield (Walton Hall)	E. Simpson, Esq.	5	0 3	150	34·41	192
Huddersfield (Bank Field, Golcar)	J. E. Ramsden, Esq.	5	1 0	400 T	46·91	183
D† ,, (Dalton)	J. W. Robson, Esq.	8	1 0	350 ⅄	37·98	181
Longwood (Bilberry Edge)	J. Stanway, Esq.	8	1 2	1100 T	40·75	...
D Mirfield (Cote Wall)	E. B. W. Balme, Esq.	8	0 9	200	35·80	176

DIVISION IX.—YORKSHIRE—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which .01 or more fell.
	WEST RIDING—(*con.*)							
D†	Wakefield Prison	Dr. H. Clarke	8	1	0	96 ⅄	34·61	181
	,, (Alverthorpe Hall)	H. Clarkson, Esq.	5	1	0	150 T	32·02	173
D	Rastrick	A. Clay, Esq.	5	1	3	410 T	36·50	171
	Pontefract (Fern Hill)	A. T. Barker, Esq.	5	2	0	120	28·57	...
D	Wakefield (Stanley Vicarage)	Rev. R. Burrell	5	1	0	100 T	28·20	187
	,, (Field Head)	R. Porter, Esq.	8	1	0	250 T	29·76	166
D	Goole	W.E.H.GrayburneEsq.	5	1	0	18 T	24·84	176
	Halifax (Bents, Norland)	J. S. Rawson, Esq.	5	0	8	800 T	44·82	...
D	,, (BermersideObservatory)	J. Gledhill, Esq.	8	0	6	500	43·50	190
	,, (Thorpe)	J. S. Rawson, Esq.	8	0	8	345 T	52·15	...
D	,, (,,)	,, ,,	5	0	8	345 T	52·30	229
†	,, (Albert)	J. A. Paskin, Esq., C.E.	5	1	0	795 T	43·61	...
†	,, (Gibbet)	,, ,, ,,	5	6	0	568 T	41·90	...
†	,, (Ramsden Wood)	,, ,, ,,	8	1	2	816 T	49·12	...
D	Leeds (Methley Park)	J. Richardson, Esq. C.E.	5	0	9	98 ⅄	35·78	155
	Halifax (Castle Carr)	J. A. Paskin, Esq., C.E.	...	...		1060 T	45·03	...
†	,, (Midgley Moor)	,, ,, ,,	7	0	6	1350 T	52·76	...
†	,, (Warley Moor)	,, ,, ,,	7	0	6	1425 T	51·92	...
†	,, (Ogden)	,, ,, ,,	8	1	3	990 T	48·49	...
	,, (Ovenden)	,, ,, ,,	...	...		1375	52·31	..
	,, (Widdop)	,, ,, ,,	...	...		1050	54·65	...
†	,, (Walshaw Dean)	,, ,, ,,	8	0	3	1380 T	?45·78	...
	Leeds (Wortley Res.)	E. Filliter, Esq., C.E.	8	0	9	307 ⅄	35·32	187
	Bradford (Brayshaw Reservoir)	A. R. Binnie, Esq., C.E.	5	1	0	982 ⅄	45·32	206
	,, (The Exchange)	J. McLandsborough, Esq	8	65	6	395 ⅄	35·99	205
	,, (Farcliffe)	E. Milnes, Esq.	5	1	0	575 T	40·21	196
	,, (ThorntonMoorRes.) M	A.R.Binnie, Esq., C.E	5	1	0	1176 ⅄	?25·95	...
	,, (Stubden) *old gauge*	,, ,, ,,	8	1	0	1075 ⅄	57·45	239
	,, (,,)	,, ,, ,,	5	1	0	1071 ⅄	56·87	240
	,, (Brown Royd Res.)	,, ,, ,,	5	1	0	385 T	?30·76	163
	,, (Nan's Scar) M	,, ,, ,,	5	1	0	1101 T	54·07	...
	,, (Stairs) M	,, ,, ,,	5	1	0	1401 ⅄	51·97	...
	,, (Leeming Res.) M	,, ,, ,,	5	1	0	850 ⅄	45·52	...
	,, (Doe Park) *old gauge*	,, ,, ,,	8	1	0	810 ⅄	50·54	231
	,, (,, ,,)	,, ,, ,,	5	1	0	811 ⅄	47·97	231
	,, (Leeshaw Res.)	,, ,, ,,	5	1	0	875 ⅄	48·97	...
	,, (Chellow Dean)	,, ,, ,,	5	1	0	645 ⅄	43·26	177
	,, (Hewenden Reservoir)	,, ,, ,,	5	1	0	701 ⅄	43·77	212
	,, (,, ,,) *old g.*	,, ,, ,,	5	1	0	700 T	47·64	212
	,, (Heaton Res.) *old g.*	,, ,, ,,	8	1	0	530 ⅄	38·62	161
	,, (,, ,,)	,, ,, ,,	5	1	0	531 ⅄	34·65	160
†	Leeds (Holbeck)	J. Marshall, Esq.	10	32	0	127 ⅄	29·75	183
	,, (,,)	,, ,, ,,	5	1	8	95 ⅄	30·94	183
	,, (,, W. Works Depot)	E. Filliter, Esq., C.E.	8	0	9	93 ⅄	31·64	181
	,, (Woodhouse Moor)	,, ,, ,,	8	0	9	307 ⅄	31·57	182
D	,, (,, Cliff)	R. Reynolds, Esq.	5	1	0	330	31·19	215
D	,, (Elmete Hall, Roundhay)	Sir J. H. Kitson, Bt.	5	1	3	400 T	33·13	193
	,, (Weetwood Reservoir)	E. Filliter, Esq., C.E.	8	0	9	328 ⅄	33·24	182

DIVISION IX.—YORKSHIRE—(*continued*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
	WEST RIDING—(*con.*)							
D	Leeds (Weetwood Hall)	S. A. Marshall, Esq.	5	0	7	400 ⅄	34·26	194
D	,, (Allerton Hill)	T. Fenwick, Esq., C.E.	5	0	7	418 ⅄	30·68	163
D	,, (Oliver Hill, Horsforth)	C. France, Esq.	3	0	9	250 T	35·50	229
	Bingley (Gilstead Filters)	A. R. Binnie, Esq., C.E.	5	1	0	572 ⅄	36·69	209
	Shipley (Esholt Vic.)	Rev. J. Myddleton Evans	8	1	2	150	35·20	206
	Leeds (Eccup South)	T. Hewson, Esq., C.E.	8	0	9	390 T	32·45	207
	,, (,, East)	,, ,, ,,	8	0	6	375 ⅄	33·61	187
†	Bingley (Sunnydale)	A. R. Binnie, Esq., C.E.	5	1	0	975 T	35·51	198
	Harewood (Arthington)	E. Filliter, Esq., C.E.	8	0	9	139 ⅄	31·41	190
	Skipton (Gill Grange, Silsden) M	A. R. Binnie, Esq., C.E.	5	1	0	883 T	31·96	...
†	Ilkley (Cherry Bank)	H. Richardson, Esq.	8	1	3	600	40·87	...
	Skipton (Silsden Reservoir)	A. R. Binnie, Esq., C.E.	5	1	0	560 ⅄	33·90	179
D	Thornton-in-Craven	Miss Wilson	5	5	4	456 ⅄	42·47	207
	Leathley (Lindley Wood S)	T. Hewson, Esq., C.E.	8	0	6	312 T	34·09	214
	,, (,, ,, N)	,, ,, ,,	8	0	6	320 T	34·55	214
	Slaidburn (Hareden Brook)	H. Reah, Esq.	8	1	2	540	70·07	...
	,, (Langden Brook)	,, ,,	8	1	2	556	71·82	...
	,, (Whiteholme)	W. K. Wilkinson, Esq.	5	1	3	475 T	59·59	171
	Skipton (Cringle's Reservoir)	A. R. Binnie, Esq., C.E.	5	1	0	760 T	35·17	179
	,, (Counter Hill)	,, ,, ,,	5	1	0	951 ⅄	33·71	...
	,, (Chelker Reservoir) M	,, ,, ,,	5	1	0	730 ⅄	34·47	...
	,, (*Craven Herald* Office)	E. Townsend, Esq.	8	0	8	360	36·95	187
	Slaidburn (Dunsop Houses)	J. B. McCallum Esq., C.E	8	1	0	450 T	68·38	189
	,, (Middle Knoll)	,, ,, ,,	8	2	6	1298 ⅄	58·60	...
	,, (Brennand)	,, ,, ,,	8	1	0	820 ⅄	70·69	193
	,, (Whitendale)	,, ,, ,,	8	1	0	830 ⅄	71·45	189
	,, (Cabin Hill)	,, ,, ,,	8	3	1	1559 ⅄	58·20	...
	,, (Baxton Fell)	,, ,, ,,	8	2	6	1540 ⅄	50·10	...
	York (Phil. Soc. Gardens)	The Meteor. Council	8	1	9	53 ⅄	29·91	202
D	,, (Manor House)	Mr. G. H. Holmes	8	0	6	46 T	31·40	203
D	,, (Cherry Hill)	H. Richardson, Esq.	5	1	6	60 T	29·35	200
	Wetherby (Ribston)	Mr. Jones	5	1	2	130 ⅄	31·59	...
	Fewston (Swinsty E)	T. Hewson, Esq., C.E	8	0	6	460 T	38·39	201
	,, (,, W)	,, ,, ,,	8	0	6	425 T	37·39	201
	,, (Timble)	,, ,, ,,	8	0	6	720 T	40·13	224
	,, South	,, ,, ,,	8	0	6	525 T	38·95	221
	,, North	,, ,, ,,	8	0	6	525 T	37·96	221
	,, (Spinksburn)	,, ,, ,,	8	0	6	620 T	37·52	215
	Blubberhouses	,, ,, ,,	8	0	6	525 T	45·19	214
D	Harrogate (West End Park)	Mr. J. H. Wilson	5	1	0	412 ⅄	32·90	200
	Skipton (Barden Res.) *old g.*	A. R. Binnie, Esq., C.E.	8	1	2	746 ⅄	42·83	221
	,, (,, ,,)	,, ,, ,,	5	1	0	746 ⅄	44·80	220
	Otterburn-in-Craven	W. Gomersall, Esq.	5	1	0	510 ⅄	47·83	180
	West End	T. Hewson, Esq., C.E	8	0	6	787 T	42·68	201
	,, ,, (Thruscross)	,, ,, ,,	8	0	6	900 T	45·14	229
	Skipton (Upper Res., Barden)	A. R. Binnie, Esq., C.E.	5	1	0	1250 ⅄	44·27	231
	,, (Thorpe Fell ,,) M	,, ,, ,,	5	1	0	1661 ⅄	32·00	...
	Knaresborough (Conyngh'm Hall)	B. T. Woodd, Esq.	5	1	2	200	28·61	...

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea level	Depth of Rain. 1886	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
WEST RIDING—(*con.*)						
D Settle (Ashfield Gardens)	Mr. T. Green, Junr.	5	2 6	483 T	54·83	207
D ,, (The Terrace)	J. W. Shepherd, Esq.	8	1 2	...	49·75	218
PateleyBdg.(GrimwithRes)*old g.*	A. R. Binnie, Esq., C.E.	8	1 0	890 ⅄	48·97	232
,, ,, (,, ,,)	,, ,, ,,	5	1 0	893 ⅄	48·63	232
,, ,, (,,Trunla Hill)...M	,, ,, ,,	5	1 0	1201 ⅄	36·36	...
D Malham Tarn	Mr. Coulthard	5	1 0	1296 ⅄	63·92	246
Settle (Clapham)	Rev. M. T. Farrer	8	5 7	565 T	46·40	229
Ripon (North Lodge)	F. D. Wise, Esq.	5	1 0	120	32·09	...
D Ingleton (Halsteads)	R. Chapman, Esq.	9	2 0	414 T	54·25	187
Nidderdale (Ramsgill)	T. Hewson, Esq., C.E.	8	0 6	500	53·35	197
D Arncliffe	Ven. Archdeacon Boyd	8	2 9	734 T	67·79	229
,, (Halton Gill)	Mr. S. Clarke	5	5 0	1030	65·64	...
Nidderdale (Middlesmoor)	T. Hewson, Esq., C.E.	8	0 6	600	52·80	215
D Ripon (High Bank, Mickley)	Miss Harrison	5	1 0	225 T	38·12	207
Oughtershaw School	C. H. L. Woodd, Esq.	8	1 4	1200 T	69·52	...
D† Sedbergh (Brig Flatts)	J. Handley, Esq.	5	1 0	300 T	63·06	220
† ,, (Thorns Hall)	Miss Sedgwick	5	1 0	400 T	60·97	211
EAST RIDING.						
Patrington (Spurn Head)	The Meteor. Council	8	1 0	27	20·76	199
D ,,	W. B. Pugh, Esq.	5	3 0	46 ⅄	24·03	153
Hull (Nelholme, Ferriby)	W. R. King, Esq.	5	4 0	125 T	28·25	...
D† ,, (Beverley Road)	H. Smith, Esq.	8	4 6	12 T	27·18	213
D ,, (Derringham)	W. Lawton, Esq.	5	2 2	10 ⅄	27·33	189
D ,, (People's Park)	Mr. E. Peak	5	0 6	6	27·02	207
Brough (Brantinghamthorpe)	Mr. R. C. Kingston	5	2 0	200 T	32·08	...
D Cottingham	J. H. Hill, Esq.	8	1 3	27	24·77	199
Market Weighton (Houghton)	Canon J. Wells	5	1 0	200?	28·83	...
Beverley (Alexandra Terrace)	T. Dyson, Esq.	12	8 0	62 ⅄	25·65	153
D ,, (Hull Bridge)	J. Tiffen, Esq.	5	2 6	11	25·63	193
D ,, (Cherry Burton)	BaldwinLathamEsqCE	5	1 0	...	29·56	160
D ,, (Leconfield)	Rev. S. Gray	5	2 6	32	25·03	138
D Market Weighton (Dalton Hall)	Mr. J. Allsop	8	1 4	150 T	29·78	184
D Holme-on-the-Wolds	Mrs. Harland	5	4 0	154 ⅄	27·53	133
Middleton-on-the-Wolds	Rev. H. D. Blanchard	5	1 0	150 T	30·20	177
D Brandesburton (Hempholm)	J. Tiffen, Esq.	5	2 6	11	23·48	185
D Pocklington (Warter)	J. Coxon, Esq.	5	1 10	230 T	33·70	211
Catton Rectory [York]	Rev. H. L. Puxley	5	1 0	50	28·80	...
D Driffield (Beverley Road)	Rev. J. T. Harwood	8	8 0	68 T	28·09	210
Wetwang	Rev. E. M. Cole	5	1 0	235 T	30·87	176
D Thixendale	Rev. W. H. Fox	10	0 9	425 T	36·32	209
D Lowthorpe (The Elms)	H. Onslow Piercy, Esq.	5	1 0	63 ⅄	30·98	183
Bridlington Quay	Mr. J. Draffin	5	1 6	40 L	24·45	147
Hunmanby (Wold Newton)	Rev. T. S. Ackland	5	1 6	194	38·04	208
NORTH RIDING.						
†Malton	H. Hurtley, Esq.	10	1 0	75 T	29·77	...
D Melmerby (Baldersby)	W. Gregson, Esq.	5	1 0	101 T	29·06	143

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
NORTH RIDING—(*con.*)						
D Oswaldkirk (The Hermitage) ...	R. Thompson, Esq. ...	5	1 0	415	31·79	200
D Thirsk (Sowerby)	C. M. Swarbreck, Esq..	5	1 0	105 T	28·35	177
,, (,, Rose Cottage)..	A. C. Bamlett, Esq. ...	5	1 0	118	30·85	135
,, (Reaper Works).....	,, ,, ,, ...	5	1 0	120	28·53	...
D Masham (Burton House)	B. Carter, Esq.	6	1 0	269 T	39·45	164
Helmsley.....	R.BruceLow,Esq.,M.D.	5	1 3	185 ⩛	34·88	184
Pickering (The Rectory)	Rev. G. H. Lightfoot..	5	1 0	150	31·42	212
D Bedale (Thorpe Perrow)	Mr. W. Culverwell ...	5	1 6	170	34·20	173
Hawes Junction.....	The Meteor. Council ...	8	1 0	1135	?78·61	244
Aysgarth Vicarage.....M	Rev. F. W. Stow	8	1 0	659 T	46·01	...
Leyburn (Wensley)	G. W. Wray, Esq.....	7	1 0	660 T	40·98	...
,, (Bolton Hall)	Mr. E. Hall.....	8	0 8	420	41·95	...
,, (,, ,,)	,, ,, ...	5	1 0	420	38·27	119
D Scarborough (Westborough).....	A. Rowntree, Esq.....	8	1 0	130	29·74	197
Hambleton Hills (High Paradise)	A. C. Bamlett, Esq. ...	5	1 0	1050	32·95	...
D†Hawes (Hardrow Vicarage)	Rev. R. Pinck.....	5	1 0	790 ⩛	55·14	215
,, (Shaw Paddock, Lunds)..	,, ,, ...	5	1 0	1100 T	74·26	...
*Northallerton (The Lodge)	J. Hodgson, Esq.	5	1 3	133 ⩛	29·81	...
Catterick (Tunstall)	J. Marshall, Esq.	5	1 0	275	31·73	...
Richmond (The Grove)	G. Roper, Esq.	5	1 3	...	44·69	...
Northallerton (Rounton Grange).	The Royal Meteor. Soc.	8	1 0	250	32·12	...
RobinHood'sBay(FylingdalesVic)	Rev. R. J. Cooper	5	...	...	30·36	...
D Ingleby Manor	The Hon. H. Sidney ...	5	0 11	440 T	41·02	186
D ,, Greenhow Vicarage.....	Rev. J. Hawell	5	1 0	448 T	39·64	204
D East Layton [Darlington]	Mrs. Maynard-Proud...	5	1 0	575 T	35·66	154
D Richmond (Forcett Park).....	J. Michell, Esq.	5	1 0	360 T	36·56	200
Whitby (Guisborough Road) ...	M. Simpson, Esq.	5	2 0	184 ⩛	30·07	178
Saltburn (Port Mulgrave)	J. Hodgson, Esq.	5	4 6	350 T	30·31	172
Guisborough (Hutton Hall)	SirJ.W.Pease,Bt.,M.P.	5	1 3	400 T	39·27	196
D ,, (LockwoodBeckRes)	W. I'Anson, Esq., C.E.	8	1 0	632 ⩛	38·23	189
D Saltburn (Skelton Reservoir) . .	,, ,, ,,	8	1 0	325 ⩛	29·65	182
D Mickleton	G.J.Symons,Esq.F.R.S	8	...	...	37 47	149
† ,, (Lime Kiln Pasture)M	,, ,, ,, ...	8	1 0	1175 T	33·75	...
,, (,, ,, ,,)M	,, ,, ,, ...	8	1 0	1175 T	36·55	...
Redcar (High Cliffe, Coatham)..	Rev. J. E. Leefe	5	1 4	...	23·43	...

DIVISION X—NORTHERN COUNTIES.

DURHAM.						
D Darlington (South End)	Mr. N. Black	8	0 10	140	32 62	189
D† ,, (Cleveland Parade)..	S. Hare, Esq.....	5	1 0	160 T	32·28	194
D ,, (Brinkburn)	Mr. H. Waud	8	1 6	165 T	29·63	136
D Barnard Castle (Whorlton)	Miss Dodgson	5	0 11	424 T	33·06	144
D†Staindrop (Raby Castle)	Mr. J. Tullett.....	8	0 8	460 T	34·17	144
D Hartlepool (Heugh Lighthouse)..	W. Belk, Esq., C.E. ...	5	0 6	34 ⩛	29·11	215
D ,, (Hurworth Burn) ...	T. Fenwick, Esq., C.E.	5	0 7	360	33·60	...

DIVISION X.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which .01 or more fell.
DURHAM—(*con*).							
D Hartlepcol (Hurworth Grange)..	J. E. Backhouse, Esq.	5	1	0	161	32·49	194
D ,, (Hart Reservoir).....	T. Fenwick, Esq., C.E.	8	0	9	164	28·01	125
D† Wolsingham	Mr. A. Mitchell	5	1	0	464 ⅄	45·88	200
Thornley Vicarage.....	Rev. W. Mayor	5	1	0	475 ⅄	31·46	...
Tow Law (The Manse)	H. P. Slade, Esq.	4	5	3	1020 T	46·25	...
Durham	The Meteor. Council ...	12	4	0	340	32·12	196
D ,, (Ushaw College).....	Rev. J. Corbishley.....	...	0	10	600 ⅄	39·11	197
Weardale W.W. (Waskerley 6)	R. Askwith, Esq., C.E.	8	4	2	1229 ⅄	35·59	...
,, ,, (,, 3)	,, ,, ,, ...	8	4	6	1433 ⅄	36·14	...
,, ,, (,, 4)	,, ,, ,, ...	8	4	7	1321 ⅄	37·43	...
,, ,, (,, 5)	,, ,, ,, ...	8	4	2	1244 ⅄	37·02	...
,, ,, (,, 2)	,, ,, ,, ...	8	4	5	1367 ⅄	35·80	...
,, ,, (,, 1)	,, ,, ,, ...	8	4	4	1317 ⅄	34·29	...
Seaham Vicarage	Rev. A. Bethune	5	0	6	80 T	30·46	...
,, Hall	Mr. R. Draper	5	1	0	100 ⅄	30·27	...
Houghton-le-Spring (Myre Hall)	D. Balfour, Esq., C.E	5	1	0	261 T	33·91	154
D Shotley Bridge	Mr. J. Coulson	5	0	6	345 T	42·91	165
D Chester-le-Street (Birtley)	R. C. Clephan, Esq. ...	5	0	9	205 ⅄	35·42	208
Sunderland (W. Hendon Ho) No. 2.	T. W. Backhouse, Esq.	5	1	0	132 ⅄	29·95	174
D ,, (Fever Hospital) ...	Dr. A. E. Harris	8	0	8	109 T	29·39	172
D South Shields (Borough Hospital)	J. R. Boyce, Esq.	5	1	0	90 T	29·10	197
NORTHUMBERLAND.							
D Haltwhistle (Shaft Hill)	Mr. R. Hetherington...	5	0	8	626 T	46·73	148
D ,, (Unthank Hall) ...	Rev. Dixon Brown.....	5	0	9	380 T	45·45	198
D Haydon Bridge (Ridley)	Rev. G. Reed	5	2	8	340 T	45·41	170
D Newcastle (Clifton Road).....	R. Foster, Esq.	8	1	6	314 ⅄	31·91	163
,, (,, ,,) .....M	,, ,, ,, ...	5	1	0	314	32·06	...
D ,, (Osborne Road)	T. G. Hurst, Esq.	5	0	8	170 T	31·92	165
,, (Philos. Society)	W. Lyall, Esq.	8	1	7	105 T	30·92	...
,, (Gladstone Terrace)..	W. Smurthwaite, Esq..	2	6	0	156 T	30·39	...
D ,, (Town Moor)	Mr. W. Neill	5	0	6	201 ⅄	33·08	182
,, (Wellburn, Jesmond).	W. H. Holmes, Esq....	5	1	6	161 T	34·38	163
North Shields (Wallsend).....	R. R. Dees, Esq.	10	0	6	100 ⅄	30·21	...
,, (Post Office)	The Meteor. Council ...	8	1	4	100	26·90	165
D† ,, (Rosella Place) ...	R. Spence, Esq.	8	1	0	124 ⅄	29·69	168
,, (Low Lights)	J. R. Procter, Esq. ..	8	3	4	22 ⅄	28·99	...
D ,, (Tynemouth)	P. J. Messent, Esq., C.E.	5	1	8	65 ⅄	26·91	197
,, (Clementhorpe) ...	J. R. Procter, Esq. ...	5	1	0	150 ⅄	29·84	162
Bingfield House.....	J. Coppin, Esq.	5	1	0	445 T	36·13	...
Newcastle and Gateshead W. Works: Whittle Dean	G. Smith, Esq.	10	...		...	32·32	...
Swinburn (Woodford).....	,, ,, ,, ...	10	0	6	500 ⅄	41·71	...
North Tyne (Green Crag) ...	,, ,, ,, ...	10	0	6	800 ⅄	37·49	...
,, ,, Valley	,, ,, ,, ...	10	0	6	300	38·79	...
Hallington	,, ,, ,, ...	10	0	6	469 ⅄	38·27	...
,, (Fawcett)	,, ,, ,, ...	10	0	6	563 ⅄	39·44	...
Gunnerton Burn (Camphill)..	,, ,, ,, ...	10	0	6	676 ⅄	37·88	...
Cramlington	The Roy. Meteor. Soc..	5	1	1	256	31·40	...

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
NORTHUMBERLAND—(*con.*)						
D Morpeth (Meldon Park)	Mr. J. Finlay	5	1 0	...	34·44	166
D ,, (Bothalhaugh Garden)	Hon. & Rev. W. C. Ellis	5	0 10	35 ?	33·24	197
Rothbury (Brenckburn Priory)	C. H. Cadogan, Esq.	8	0 9	260 T	36·20	...
D Felton	T. J. Murday, Esq.	5	1 6	230 ?	33·70	192
,, M	,, ,, ,,	5	1 6	230 ?	33·76	...
Rothbury (Cragside)	Sir W. G. Armstrong, CB	8	1 0	400 ⅄	42·65	128
Alwinton (Harbottle Castle)	Mr. R. Elliott	5	1 0	500	39·99	152
,, (Biddleston Hall)	P. Dodds, Esq.	5	1 0	820 T	41·12	170
Alnwick (Belle Vue House)	J. J. Horsley, Esq.	5	0 4	304	29·61	123
,, Castle	The Meteor. Council	5	0 4	178	33·51	188
D Howick Hall	Rt. Hon. Earl Grey, K.G.	8	0 10	121 ⅄	31·22	144
Ilderton (Lilburn Tower)	E. J. Collingwood, Esq.	10	6 0	300 T	31·10	...
Cheviot (Broadstruther) M	G. P. Hughes, Esq.	8	4 0	1692 ⅄	59·75	...
Bamburgh	Mr. W. C. Good	5	1 0	75 L	30·64	168
D Pawston [Coldstream]	B. P. Selby, Esq.	8	1 0	328 T	32·52	212
CUMBERLAND.						
Ravenglass (The Grove)	J. Ross, Esq.	5	2 6	80 ⅄	51·00	135
Sprinkling Tarn M	Mr. E. Wilson	4	0 6	...	107·40	...
Wastdale Head M	,, ,,	4	0 6	204 T	88·78	...
Styehead Tarn M	,, ,, ,,	4	0 6	1472 T	115·30	...
†The Stye M	,, ,, ,,	4	0 6	1077 T	169·38	...
Gable Hawes M	,, ,, ,,	8	...	1077 T	82·35	...
St. Bees (Abbot's Court)	A. Hodgetts, Esq.	5	1 1	20 L	42·78	181
†Seathwaite M	Mrs. Dixon	4	0 6	422 T	135·93	...
D† ,,	,, ,,	5	1 0	423 T	133·84	213
† ,,	The Roy. Meteor. Society	5	1 0	422 T	134·82	212
*† ,, M	John Marshall, Esq.	5	1 0	420 T	130·46	...
Ullscarf M	G. H. Hill, Esq., C.E.	7	1 0	2100 T	114·90	...
D Whitehaven (The Flosh, Cleator)	D. Ainsworth, Esq. M.P.	5	1 11	208 T	56·26	182
D† Wythburn Vicarage	Rev. Basil R. Lawson	5	1 0	574 T	111·51	154
†Helvellyn (Birkside) M	G. H. Hill, Esq., C.E.	7	1 0	1900 T	73·20	...
†Wythburn M	,, ,, ,,	7	1 0	580 T	93·60	...
†Rosthwaite (Castle Lodge) M	G. J. Symons, Esq., F.R.S.	8	1 0	305 T	104·45	...
†Watendlath M	,, ,,	8	1 0	867 T	89·75	...
Armboth	G. H. Hill, Esq., C.E.	7	1 0	550 T	82·90	...
,, Fells (The Pewitts)	,, ,, ,,	7	1 0	1650 T	84·60	...
Helvellyn (Whiteside)	,, ,, ,,	7	1 0	2100 T	62·50	...
†Whitehaven (Irish Street)	Dr. I'Anson	5	1 1	21 ⅄	47·78	167
D Arlecdon (Kirklandhow)	J. B. Wilson, Esq., C.E.	5	1 0	500 T	55·54	171
Loweswater (Waterend)	Mrs. Jackson	5	1 0	432 T	59·03	210
†Keswick (Deer Close)	John Marshall, Esq.	7	1 9	300 T	63·97	210
D† ,, (Derwent Island) ...*old*	,, ,, ,,	5	0 7	280 T	55·80	207
D ,, (,, ,,) ...*new*	,, ,, ,,	5	0 6	290	59·55	207
D† ,, (Post Office)	J. F. Crosthwaite, Esq.	8	6 4	270 T	63·12	203
D† ,, (,, ,,)	,, ,, ,,	5	1 0	265	61·96	205
D† ,, (Shu-le-crow)	Miss Mitchell	8	2 6	296 T	60·47	213
Whitehaven (Gilgarron Hall)	Mr. D. Galloway	5	4 9	470 T	53·38	209

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft in.	feet.	inches.	
CUMBERLAND—(*con.*)						
D Whitehaven (Distington)	Baldwin Latham Esq CE	5	1 0	...	?38·91	169
D Cockermouth (Whinfell Hall)	W. Robinson, Esq.	5	2 0	265 ⊼	58·28	231
D ,, (Brandlingill)	Capt. F. R. Sewell	5	1 0	320 ⊼	54·34	229
†Threlkeld Rectory	Rev. J. Brunskill	5	4 0	488 T	48·82	184
†Bassenthwaite (Mirehouse)	H. A. Spedding, Esq.	5	0 6	300 T	54·98	222
Brigham (Broughton Cross)	L. Wilson, Esq.	5	1 6	147 T	41·61	...
D†Cockermouth (Derwent House)	Mrs. Dodgson	5	...	...	45·64	204
D† ,, (Higham)	Rev. Canon Hoskins	5	1 0	478 ⊼	50·65	211
D ,, (Broughton Grange)	G. S. Wilson, Esq.	5	1 3	209 ⊼	46·86	217
Penrith (Skirsgill Park)	Capt. Gandy	...	...	...	37·96	...
,, (Culgaith Vicarage)	Rev. G. W. Atkinson	5	0 5	500 T	36·42	158
† ,, (Fell Lane, Fir Bank)	T. Lester, Esq.	5	1 0	575 T	40·43	202
D† ,, (Newton Reigny)	T. G. Benn, Esq.	8	1 0	580 ⊼	44·14	212
† ,, (,, ,,) M	,, ,, ,,	8	1 0	580 ⊼	44·15	...
D ,, (Edenhall Vicarage)	B. W. Lovejoy, Esq.	5	1 4	310 T	36·56	205
D ,, (,, The Luham)	G. Varty Smith, Esq.	5	1 1	270 T	35·54	172
D†Blencowe School	T. Fawcett, Esq.	8	0 9	601 B	47·79	218
Maryport (Netherhall)	H. P. Senhouse, Esq.	8	0 6	27 ⊼	44·08	159
Hesket Newmarket	Mr. J. Wilson	5	1 0	600 T	41·13	...
Aspatria (Brayton Hall)	Mr. J. Hammond	8	1 6	220	42·16	...
D ,, (Brookfield)	M. Lidbetter, Esq.	5	0 9	124 ⊼	39·97	214
Carlisle (Wreay Vicarage)	Rev. T. Lees	5	2 0	310 T	36·27	228
D† ,, (Cemetery)	I. Cartmell, Esq.	8	3 0	114 ⊼	35·73	172
D ,, (Rose Hill)	C. Lonsdale, Esq.	8	1 0	102 ⊼	35·74	198
,, (Rickerby)	M. MacInnes, Esq., M.P.	8	1 0	50	33·98	...
,, (Castletown)	Mr. A. Smith	...	...	...	27·16	...
† ,, (Scaleby Hall)	R. A. Allison, Esq., M.P.	5	1 0	112 ⊼	35·60	...
D Brampton (Denton House)	Mr. J. Charlton	5	1 2	542 T	44·37	225
WESTMORELAND.						
D Arnside	J. P. Drewett, Esq.	5	0 6	25	57·89	198
Kirkby Lonsdale	Mr. W. Harrison	5	1 2	209	49·65	...
D Kendal (Kent Terrace)	R. J. Nelson, Esq.	5	1 6	146 T	58·98	208
D ,, (Underfell) ..... No. 1	F. Wilson, Esq.	8	3 0	300 B	61·55	191
D ,, (,,) ..... No. 3	,, ,,	8	1 0	300 B	63·97	191
D ,, (Hawesmead)	G. Braithwaite, jun. Esq.	8	0 6	175 ⊼	60·80	235
D Bowness (Fallbarrow)	Rev. A. Rawson	8	1 0	135 T	73·38	223
D†Ambleside (Nook Cottage)	Mr. E. Hird	5	1 0	227 ⊼	85·45	236
† ,, (Lesketh Howe)	F. M. T. Jones, Esq.	5	2 6	175 T	91·27	233
D†Grasmere (High Close)	E. B. W. Balme, Esq.	8	0 9	553 T	86·86	217
D Ravenstonedale (Brownber)	J. Fothergill, Esq.	5	3 0	826 T	52·07	185
Orton Vicarage	Rev. E. Holme	5	3 6	770 T	66·14	133
D†Kirkby Stephen	T. Mason, Esq.	5	1 0	574 T	52·36	173
†Shap (Sleddale) M	Mr. W. Hoggarth	5	1 0	1560 T	83·40	...
† ,, (Swindale) M	,, ,,	5	1 0	1610 T	96·95	...
†Haweswater (Mardale Green) M	G. J. Symons, Esq., FRS	5	1 0	780 T	102·10	...
† ,, (,, ,,) M	,, ,, ,,	8	1 0	780 T	98·05	...
,, (Naddle Forest) M	,, ,, ,,	8	1 0	...	71·50	...

DIVISION X.—NORTHERN COUNTIES.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WESTMORELAND—(*con.*)						
D†Shap (Copy Hill)	Mr. W. Hoggarth	5	1 0	852 ⩛	65·87	226
D†Patterdale Hall	Mr. A. Milne	7	1 3	490 T	93·79	224
† ,, (Greenside Mine)	Mr. T. Taylor	7	1 6	1000 T	97·08	...
D†Crosby Ravensworth (Reagill)	Mr. Wilkinson	8	0 6	890 T	48·69	169
D†Appleby	Dr. Armstrong	5	1 0	442 ⩛	42·90	190
Ullswater (Swarth Fell) M	G.J.Symons.Esq. F.R.S.	8	1 0	1000 T	62·75	...
,, (Sharrow Bay) M	A. Parkin, Esq.	5	0 7	500 T	52·92	...
,, (,, ,,) M	,, ,,	8	1 6	500 T	51·25	...
Lowther Castle [Penrith]	Mr. F. Clarke	8	4 0	750 T	47·23	...
D Milburn M	Miss Robinson	5	1 0	644 T	41·29	190

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH.							
D Marshfield (Llwynarthan)	F. G. Evans, Esq.	5	1	0	72 B	46·32	189
D Newport (Gold Tops)	T. Dyne Steel, Esq, C.E.	10	1	6	100 ⩛	49·35	205
D Chepstow (Shirenewton Hall)	E. J. Lowe, Esq., F.R.S.	8	0	6	530 T	46·53	198
D Llanfrechfa Grange	F. J. Mitchell, Esq.	5	4	0	326 ⩛	48·25	173
Tredunnock	Rev. C. T. Salusbury	5	2	3	170 ⩛	43·33	192
D Chepstow (The Mount)	H. A. Smith, Esq.	5	1	0	150	41·71	150
D ,, (Piercefield Park)	H. Clay, Esq.	5	1	6	300 ?	41·97	193
Pontypool (Llanthewy Vach Rec.)	Rev. J. E. J. Machen	5	2	3	200 T	48·08	187
D Usk (Porthycarne)	D. Lawrence, Esq.	5	...		...	45·98	193
D Tredegar (Bedwellty House)	J. Colquhoun, Esq.	8	1	0	972 ⩛	71·64	213
D ,, (The Willows)	G. A. Brown, Esq.	8	1	0	1024 T	65·77	202
D Ebbw Vale (The Firs)	R. S. Jordan, Esq.	5	1	0	1060 ⩛	68·19	211
Abergavenny (Larchfield)	Dr. Glendinning	5	1	0	240 B	46·60	182
,, (Dyne House)	Dr. Steel	5	1	3	220	49·67	204
D Llantilio Court	Sir H. M. Jackson, Bt.	5	0	11	207 ⩛	43·38	154
D Monmouth (Pentwyn)	Rev. J. T. Harding	5	1	0	191 B	38·38	151
GLAMORGAN.							
* Cowbridge (The Ham)	G. W. Nicholl, Esq.	8	1	3	96 T	36·52	150
D Penarth (Cwrt-y-vil)	Lascelles Carr, Esq.	8	4	0	120	43·73	159
Cardiff (Cogan Pill, Landough)	J.A.B.Williams, Esq CE	5	1	0	122 ⩛	43·60	177
D ,, (New Cemetery)	Mr. T. Haydyn	4	1	0	95	45·93	148
D ,, Castle	Mr. A. Pettigrew	5	1	0	38 ⩛	46·61	203
Cowbridge (Ash Hall)	D. Owen, Esq.	8	1	0	315 ⩛	51·80	196
D Cardiff (Ely)	J.A.B.Williams, Esq CE	8	1	0	53 ⩛	50·72	202
,, (Lisvane)	,, ,, ,,	5	1	0	136 ⩛	45·72	184
D Oystermouth (Newton)	Rev. S. Jones	5	0	9	279	50·77	197
D Swansea (Sketty)	T. T. Wood, Esq.	5	1	0	280	54·81	196
D ,, (South Dock Lock)	R. Capper, Esq.	12	14	9	40	45·89	182
D Mountain Ash Waterworks	F. Russell, Esq.	5	2	0	...	75·02	182
D Neath	E.C. Pole, Esq.	5	1	0	204 ⩛	57·12	201
D ,, (Morriston)	E. Rice Morgan, Esq.	5	1	0	89	56·96	182
,, (Fairy Land)	E. Ll. Green, Esq.	5	1	9	170 B	56·14	208

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
GLAMORGAN—(*con.*)							
D† Neath (Glyncorrwg)	T. F. Brown, Esq.	5	4	6	717	95·33	198
Treherbert	Sir W. T. Lewis, C.E.	5	1	0	670	89·20	197
Castell Llwchwr (Penllergare)	J. T. D. Llewellyn, Esq.	5	4	3	240 T	55·52	194
Aberdare (The Mardy)	Sir W. T. Lewis, C.E.	5	2	2	431 R	73·22	189
D† ,, (Abernant)	Evan Jones, Esq.	5	4		425	52·33	155
D Felindre (Lliw Reservoir)	R. H. Wyrill, Esq., C.E.	8	1	6	426 T	63·00	190
D Dowlais (Cwm Bargoed)	G. A. Lundie, Esq., C.E.	5	1	0	1237 R	44·36	203
D Ystalyfera (Tan-yr-allt)	D. H. Lewis, Esq.	8	1	6	300 L	81·33	187
CARMARTHEN.							
Llanelly (Old Market Place)	G. Watkeys, Esq., C.E.	5	10	0	35	54·05	201
Tegfynydd [Narberth]	H. S. Morgan, Esq.	5	1	0	158 R	58·02	140
†Carmarthen (Joint Co. Asylum)	Dr. Hearder	8	1	0	189 R	58·73	220
Llandilo (Golden Grove)	Mr. J. Hill	5	0	6	...	59·93	232
,, (Dynevor Castle)	Rt. Hon. Lord Dynevor	8	1	0	202 T	58·89	222
D Llandovery	J. Watkins, Esq.	5	1	0	217 T	62·71	234
PEMBROKE.							
Pembroke (Stackpole Court)	Rt. Hon. Earl of Cawdor	9	1	8	60 T	48·71	200
,, (St. Ann's Head)	The Meteor. Council	8	0	8	150	40·59	217
D Haverfordwest (Picton Castle)	Mr. J. Dumble	5	1	0	100	55·16	193
D* ,, (High Street)	E. P. Phillips, Esq.	5	1	0	95 T	57·64	201
D Clarbeston (Penty Park)	Capt. F. Lloyd Philipps	5	1	0	260 B	59·63	188
D St. David's	Dr. W. P. Propert	5	1	0	216	43·37	207
D Fishguard (Castle Hill)	W. D. Wathen, Esq.	5	1	0	200 T	51·26	192
D Castle Malgwyn [Llechryd]	Mr. F. Peppitt	5	1	0	...	55·10	206
CARDIGAN.							
D Aberystwith (Cwmsymlog)	Capt. Garland	5	3	0	800	64·60	194
BRECKNOCK.							
D† Nanthir Reservoir [Aberdare]	T. L. Edwards, Esq.	5	1	0	860 R	66·59	222
† ,, ,, [,,] M	,, ,, ,,	5	1	0	860 R	67·10	...
†Cardiff W W (Cwm Taff Fawr No 5)	J A B Williams, Esq. C.E.	5	1	0	1150 T	79·00	...
† ,, ,, (,, ,, ,, No. 1)	,, ,, ,,	5	1	0	2350 T	77·89	...
D† ,, ,, (,, ,, ,, No. 6)	,, ,, ,,	5	1	0	1310 T	80·17	153
Crickhowel (Gwernvale)	Mrs. Lloyd	5	1	0	373 R	48·70	204
Brecknock (Cantreff Rect.)	Rev. J. J. Evans	5	0	8	550 ?	61·84	145
,,	J. Kirk, Esq.	5	2	0	437 R	50·61	...
D Trecastle (Llywel Vic.)	Rev. T. Jones	5	1	0	750 T	62·73	211
D Brecknock (Llandefaelog-fach)	Rev. W. Williams	5	1	1	637	50·92	229
Hay (Gwernyfed Park)	T. Wood, Esq.	4	1	2	350 T	40·48	201
D Builth (Llanwrtyd Wells)	Miss Jones	5	1	0	800 L	77·70	227
,, (Vicarage)	Rev. A. J. Coore	8	2	0	500 T	44·78	...
D ,, (Abergwessin Vic.)	Rev. J. Jones	5	1	0	1003 L	84·35	247
D Newbridge (Llysdinam)	Mrs. Lister Venables	5	1	0	600 B	51·92	215

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
RADNOR.						
Glasbury	A. Battiscombe, Esq.	5	1 0	300 T	38·37	181
D Llanstephan	J. Hotchkiss, Esq.	5	1 0	394	43·96	186
D Llandrindod Wells (Brynarlais)	Dr. W. B. Davies	5	1 0	700 B	45·38	225
New Radnor (Downton)	Col. Pearson	5	1 0	712	49·27	228
,, ,, (Ednol)	,, ,,	5	1 0	930	53·26	215
Llandegley (Gwern-i-Arglwydd)	,, ,,	5	1 0	1000	48·04	211
Pen-y-bont	,, ,,	5	3 6	750	43·66	215
D Rhayader (Nantgwillt)	R. L. Lloyd, Esq.	5	1 0	767 B	74·69	203
MONTGOMERY.						
Llangurig (Esgair Clochfan)	G. J. Symons, Esq., FRS	5	1 2	1330	69·10	...
† ,, (Ystrad-olwyn-fawr) M	Mr. J. Jones	8	1 0	950	51·30	...
D Llanidloes (Broomcliffe)	E. Powell, Esq.	5	1 0	650 T	57·36	239
D Newtown (Dolfor)	W. B. Pugh, Esq.	5	0 3	1027 T	43·13	228
D Churchstoke (Mellington Hall)	P. Wright, Esq.	5	1 6	540 ⅄	37·75	194
,, (,, ,,) M	,, ,, ,,	5	1 6	540 ⅄	37·42	...
Dylife Lead Mine	G. J. Symons, Esq. F.R.S.	5	1 0	1400 T	60·80	...
D Carno (Llanwnog)	Rev. D. Parry	5	3 4	...	39·34	209
D† ,, (Tybrith)	Miss Marsh	5	1 0	595 T	55·91	225
D† Garthbibio (Rhos-y-perfedd)	G. J. Symons, Esq., FRS.	8	1 2	792	57·05	169
,, (Bwlch Tomlyd)	,, ,, ,,	5	1 2	1370	71·40	...
†Llanwddyn (Daffrn-newydd)	,, ,, ,,	8	1 0	750 B	35·33	...
FLINT						
† Mold (Bryn Alyn)	Rev. R. B. Cooke	5	1 2	483 ⅄	34·36	...
D Hawarden	Dr. Burlingham	5	1 0	245 T	34·24	205
D† Flint (Soughton Hall, Northop)	J. Scott Bankes, Esq.	5	0 8	418	36·21	...
St. Asaph (Nantllys)	P. P. Pennant, Esq.	5	1 0	173 ⅄	35·35	...
D† Halkyn	Capt. Williams	5	1 3	895 ⅄	36·59	183
Holywell (Bagillt)	A. O. Walker, Esq.	5	1 6	20 T	33·80	202
D Rhyl (Sedgley House)	W. T. Girdlestone, Esq.	5	2 6	21 ⅄	33·24	185
Prestatyn (Nant)	T. G. Dixon, Esq.	5	1 2	30 ?	34·80	215
DENBIGH.						
D Chirk (Brynkinalt)	Rt. Hon. Lord Trevor	5	0 6	325	37·39	175
D Ruabon (Wynnstay)	Mr. Middleton	12	3 0	484 ⅄	39·76	222
D Llangollen (Plas Berwyn)	Major Tottenham	5	0 5	440	46·85	190
D Cerrig-y-druidon	C. S. Mainwaring, Esq.	5	1 0	890 T	57·20	197
Wrexham (Pack Saddle Res.)	F. W. Storr, Esq.	5	0 9	370 ⅄	37·62	186
,, (Cae Llwyd Res.)	,, ,, ,,	8	0 9	918 ⅄	48·52	170
,, (,, ,, ,,)	,, ,, ,,	5	0 9	918 ⅄	49·25	170
,, (Brymbo)	J. H. Darby, Esq.	5	15 3	674	28·62	...
D Rosset (Trevalyn Hall)	Capt. Griffith Boscawen.	5	1 0	58 ⅄	32·04	202
D Llangerniew (Hafodunos)	Mr. W. Jones	5	1 0	512 T	55·78	188
†Nannerch (Penbedw Hall)	Mr. W. McMurray	8	0 6	650 T	42·94	199
D Denbigh (Garn)	W. D. W. Griffith, Esq.	5	0 10	457 T	38·86	199
D Eglwys-Bach (Bodnant)	C. Ashby, Esq.	8	2 6	102 ⅄	43·12	183
Colwyn Bay (Nant-y-Glyn)	A. O. Walker, Esq.	5	2 3	180 ⅄	38·85	201
,, (Bryn Euryn)	Mr. T. Hutchings	5	1 0	125 T	37·74	191

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MERIONETH.						
† Dolgelly (Brithdir)	J. Hill, Esq.	5	1 6	465 T	71·90	...
Trawsfynydd	Major Mathew	5	0 7	700	72·36	150
D Llanderfel (Palé Gardens)	Mr. T. Ruddy	8	1 0	606 ⅄	53·41	232
D Corwen (Rhug Gardens)	Mr. J. Bennett	5	1 0	500	41·72	157
CARNARVON.						
Pwllheli (Bodfaen)	Major Mathew	5	5 0	80	53·43	196
*Llanystumdwy (Talarvor)	,, ,,	5	3 0	50	44·07	174
D†*Port Madoc	,, ,,	5	3 0	10	64·09	188
*Llangybi (Cefn)	,, ,,	5	1 1	200	57·32	191
Llandwrog (Glynllivan Park)	Hon. F. G. Wynn	5	1 0	80?	51·57	...
,, (,, Garden)	,, ,,	5	1 0	160	56·95	227
,, (,, Fort)	,, ,,	8	1 0	170	52·86	195
Pen-y-gwryd	Mr. H. Owen	8	1 0	880	108·75	185
Carnarvon (Belan Fort)	Hon. F. G. Wynn	5	1 0	12	36·90	...
,, (Cocksidia)	Major Mathew	5	1 0	120	42·48	198
D Dinorwic Quarry	,, ,,	5	4 0	850	67·99	185
D Llanbedr-y-Cennin (Llyndulyn)	T. T. Marks, Esq., C.E.	8	1 6	1622 T	118·51	164
Llanfairfechan	R. Luck, Esq.	5	0 8	150 B	44·20	158
D†Llandudno (Warwick House)	Dr. Nicol	8	0 8	99 ⅄	35·99	189
ANGLESEA.						
D Llangadwaladr (Bodorgan)	Mr. J. Gray	8	3 6	...	46·56	189
Holyhead	The Meteor. Council	...	...	...	41·36	206
LlanerchymeddLlwydiarthEsgob	T. Prichard, Esq.	5	1 0	112 L	49·73	199
Bodewryd (Rhosybol)	Rev. D. Morgan	5	1 6	170	50·11	164
ISLE OF MAN.						
Calf of Man (Chicken's Rock)	Bd. of Northern Lights	...	...	...	22·38	...
Castletown (Langness)	,, ,, ,,	...	...	...	31·85	...
St. Mark's	A. W. Moore, Esq.	5	0 9	400	42·36	188
D Douglas (Derby Square)	P. Killey, Esq.	5	1 1	78	44·20	197
D ,, (Victoria Road)	H. Story, Esq.	8	1 0	120 L	49·10	215
D ,, (Prospect Hill)	T. Keig, Esq.	5	16 0	58	47·32	212
,, (Cronkbourne)	A. W. Moore, Esq.	8	0 10	138 ⅄	49·68	210
,, (Clypse, Onchan)	,, ,,	8	1 0	439 T	53·95	...
Peel	,, ,,	5	1 0	210 T	42·26	...
The Dhoon	,, ,,	5	1 0	450 T	62·14	207
Ramsey	,, ,,	5	0 9	30	48·42	195
Andreas	Rev. F. Lamothe	5	0 6	72 T	38·27	146
Point of Ayre	Bd. of Northern Lights	...	...	...	27·98	...
ISLES OF SCILLY.						
St. Mary's	The Meteor. Council	8	1 6	77 L	34·88	240
D†Tresco Abbey	T. A. D. Smith, Esq.	12	3 0	20	34·76	191
JERSEY.						
St. Helier (Hastings Terrace)	W. L. Lancaster, Esq.	5	0 7	...	42·64	199
St. Aubins (Noirmont)	The Meteor. Council	8	1 0	270	41·41	220
GUERNSEY.						
D Les Ruettes Brayes	A. Collenette, Esq.	5	1 0	255 L	44·76	228
,, ,,	,, ,, ,,	5	1 0	255 L	45·29	...
D Villa Carey	Dr. Carey	8	1 9	180	40·25	212
,, M	,, ,,	5	...	180	40·51	...

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	WIGTON.						
	Mull of Galloway	Bd. of Northern Lights	...	...	...	33·88	...
D	Garliestown (Galloway Ho.)	Mr. J. Day	5	4 6	20 ?	44·42	185
D	Stoneykirk (Ardwell House)	M.J.Stewart,Esq.,M.P.	8	1 0	125	37·37	123
	Corsewall	Bd. of Northern Lights	...	3 4	22 ?	34·73	139
	KIRKCUDBRIGHT.						
	Little Ross	Bd. of Northern Lights	...	3 3	130 ?	32·12	121
	St. Mary's Isle	Mr. Browning	7	0 4	...	?39·47	...
	Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	30	51·88	...
	Dalbeattie (Colvend Manse)	Rev. J. Fraser	5	1 6	120 T	43·80	...
	Twynholm (Cally)	A. Buchan, Esq.	5	1 0	140	53·97	...
	*Dalbeattie (Station Road)	Mr. W. McBride	10	1 0	50 ?	54·49	143
D	Cargen [Dumfries]	P. Dudgeon, Esq.	5	0 4	80 T	43·31	183
D	New Galloway (Glenlee)	Mr. W. Melville	5	1 3	...	59·56	217
	Irongray (Drum Park)	D. J. Kay, Esq.	3	0 8	230	54·65	...
	DUMFRIES.						
D	Annan (Kinmount)	Mr. R. Elliot	8	3 0	140 T	42·75	192
D	Dumfries (Crichton Inst.)	Mr. Smith	5	0 6	159 T	36·81	164
	Canobie (Byreburnfoot)	W. Doughty, Esq.	3	0 8	160 T	46·13	...
	Langholm (Westwater)	Mr. W. Elliot	5	2 0	550 T	57·40	...
	,, (Ewes School)	J. C. Little, Esq.	3	0 6	445 T	58·35	...
	,, (,, Burnfoot)	,, ,,	3	0 6	541 T	60·37	...
	Durrisdeer (Drumlanrig Castle)	Mr. D. Thomson	4	0 6	191	41·80	...
	Moffat (Ericstane)	J. J. Welsh, Esq.	...	...	550	56·00	...
	ROXBURGH.						
	New Castleton (The Flatt)	J. Elliot, Esq.	3	0 9	350 T	55·60	...
	Hawick (Wolfelee)	Mr. Cockburn	5	0 6	587	42·37	...
	,, (Branxholme)	W. E. Lockhart, Esq.	5	0 2	451 T	38·68	...
	,, (Kirkton)	Mr. J. Welsh	3	0 6	759 T	44·60	...
	,, (Wilton Hill)	Mr. D. Elder	5	4 6	420 T	31·56	185
	*Jedburgh (Sunnyside)	G. Hilson, Esq.	5	6 0	351 T	31·30	164
D	St. Boswell's (Elliston)	The Hon. G. Dalrymple	5	1 0	356 B	30·75	180
	Kelso (Springwood Park)	Mr. W. Chaplin	10	1 0	130 L	29·97	170
D	Melrose (Asylum)	Mr. Pattman	5	0 6	480 T	31·83	235
D	,, (Abbey Gate)	Mr. A. Dodds	5	0 6	280 T	38·17	242

DIVISION XIII.—SOUTH EASTERN COUNTIES.

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	SELKIRK.						
	Borthwickbrae [Hawick]	W. E. Lockhart, Esq.	8	0 2	800	46·50	...
	Selkirk (Bowhill)	A. Buchan, Esq.	9	11 0	597	35·61	...
D	,, (The Hangingshaw)	Miss Johnstone	5	0 3	670 T	42·25	207
D	Galashiels (Abbotsford Rd.)	Dr. Somerville	5	0 6	416 T	39·85	213
	PEEBLES.						
	Innerleithen (The Glen)	A. Buchan, Esq.	...	...	...	48·10	...
	Manor (Glenrath)	Mr. S. Linton	5	1 2	764 ⅄	39·24	...
	Peebles (Stobo Castle)	A. Buchan, Esq.	...	...	600	32·90	...
	Innerleithen (Runic Cross)	Mr. R. Mathison	5	1 0	474 ⅄	41·38	...
	,, (Leithen Lodge)	Mr. D. Clark	11	0 0	800 T	56·96	...
	Eddlestone (Portmore Res.)	W. H. Cameron, Esq.	11	0 6	1000	44·33	149
D	N. Esk Reservoir [Penicuick]	Mr. J. Garnock	11	0 6	1150 ⅄	38·55	178
	BERWICK.						
D	Coldstream (The Hirsel)	Mr. Cairns	3	0 7	75 ⅄	31·08	166
D	Marchmont House	Mr. P. Loney	5	1 0	500 T	38·20	221
	Berwick (Paxton House)	A. Buchan, Esq.	...	...	...	28·32	...
	Dunse (Clouds)	C. Watson, Esq.	8	0 6	500 T	35·59	...
	,, Castle	A. Buchan, Esq.	...	...	...	30·32	...
	St. Abb's Head	Bd. of Northern Lights	...	...	...	23·97	145
	HADDINGTON.						
D	Haddington (Asylum)	J. Mowat, Esq.	5	1 0	238 T	29·61	227
D	East Linton	Mr. J. Storie	3	0 3	90 T	30·97	151
	Prestonkirk (Smeaton)	A. Buchan, Esq.	...	...	100	27·12	...
	Drem (Craigielaw)	,, ,,	5	...	...	27·79	...
	EDINBURGH.						
	Moorfoot Hills (Gladhouse Res.)	W. H. Cameron, Esq.	11	0 6	900	43·56	206
	,, ,, (Rosebery)	,, ,, ,,	...	...	...	37·01	151
D	Gorebridge (Middleton)	Miss Anstruther	5	...	750	37·52	172
	Penicuick (Edgelaw Res.)	W. H. Cameron, Esq.	11	0 6	654	36·78	152
	Pentland Hills (Harper Rig)	,, ,, ,,	11	0 6	900	38·80	...
	,, ,, (Hare Hill)	,, ,, ,,	...	...	...	57·20	...
	West Calder (Addiewell)	J. Fyfe, Esq.	5	0 6	695	39·11	...
	Pentland Hills (Swanston)	W. H. Cameron, Esq.	11	0 6	550	34·40	...
	,, ,, (Glencorse Res.)	,, ,, ,,	11	0 6	787	44·86	164
	,, ,, (Clubbiedean Res.)	,, ,, ,,	11	0 6	750	38·55	130
	Colinton (Fernielaw)	J. Leslie, Esq., C.E.	11	0 6	500	37·30	...
D	Gilmerton Station	Mr. J. J. Bell	5	0 6	240	29·88	137
	Liberton (Alnwick Hill Res.)	W. H. Cameron, Esq.	...	...	400	32·04	118
	Edinburgh (Charlotte Square)	J. Leslie, Esq., C.E.	11	0 6	230	26·05	...
	,, (,, ,,)	,, ,,	12	63 0	300	19·85	...
	,, (Cumin Place)	A. Buchan, Esq.	5	1 0	162	31·78	...
	,, (Streatham Ho.)	,, ,,	...	...	...	28·60	...
	,, (Napier Road)	,, ,,	...	...	...	28·38	...
	,, (Blacket Place)	R. C. Mossman, Esq.	5	1 0	249 T	29·98	214

DIVISION XIII.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
EDINBURGH—(*con.*)						
Leith	The Meteor. Council	8	1 8	22	24·63	176
,, (Navigation School)	A. Buchan, Esq.	...	...	70	28·10	...
LINLITHGOW.						
Whitburn (Polkemmet)	A. Buchan, Esq.	...	...	...	43·85	...
Bathgate	J. Fyfe, Esq.	...	...	...	32·28	...
Uphall	,, ,, ,,	...	...	...	31·11	...

DIVISION XIV.—SOUTH WESTERN COUNTIES.

LANARK.							
Biggar (Wiston)	Mr. W. Core	3	0 4	860 T	47·60	...
D ,, (Cambus Wallace)	Captain Paul	6	0 6	748 ⩛	32·22	191
Dalzell House	J G C Hamilton, Esq, MP	6	5 3	89 T	25·84	131
D Hamilton Water Works	Mr. R. Watson	7	1 0	425 T	30·15	...
,, (Bothwell Castle)	Mr. W. F. Archibald	10	18 0	146 T	23·71	150
†Cambuslang (Bushy Hill)	Dr. Muirhead	5	1 0	146 ⩛	32·40	208
D Airdrie (Hillend Reservoir)	Mr. W. Ritchie	6	4 6	620 ⩛	37·67	198
Glasgow Observatory	Prof. Grant, F.R.S.	11	1 9	180	32·18	189
,,	A. Buchan, Esq.	...	...	54	31·74	...
AYR.							
D Ballantrae (Glendrishaig)	P. Murdoch, Esq.	5	1 0	320	40·82	187
Barrhill (Dochroyle)	Mr. J. Scott	6	0 7	550 T	44·51	...
D Colmonell	R. Aitken, Esq.	6	0 6	100 T	44·08	220
Girvan (Pinmore)	Hugh Hamilton, Esq.	5	1 0	187 ⩛	45·72	208
Loch Finlas	J. Wilson, Esq., C.E.	5	1 0	849 ⩛	46·75	...
Girvan (Turnberry)	Bd. of Northern Lights	...	...	...	27·48	175
Ayr (Auchinlee)	J. Drennan, Esq.	6	3 0	36 T	32·27	...
D Old Cumnock	Mr. J. Ballantine	5	1 0	380 ⩛	41·72	197
Kilmarnock (North Craig)	J. M. Gale, Esq., C.E.	12	0 6	310	35·37	...
Ardrossan	The Meteor. Council	8	1 0	10	27·26	196
D ,, (Kirkhall)	H. F. Weir, Esq.	8	2 9	106 ⩛	34·37	175
Dalry (Blair Park)	J. Wilson, Esq., C.E.	4	0 2	710	58·00	...
D ,, (Carsehead)	A. B. Aitken, Esq.	5	1 1	160 T	41·26	199
Paisley W.W. (Camphill)	R. Sharp, Esq.	11	...	611	59·90	...
Wemyss Bay (Ashcraig)	Miss Stewart	10	2 10	15	44·41	...
Shaws W. Works (Kelly Dam)	J. Wilson, Esq., C.E.	6	1 0	640 ?	60·20	...
RENFREW.							
Gorbals's Dist. — Ryat Lynn	J. M. Gale, Esq., C.E.	8	0 5	310	46·25	...
Gorbals's Dist. — Waulk Glen	,, ,, ,,	12	0 5	280	44·55	...
Gorbals's Dist. — Middleton	,, ,, ,,	12	0 5	550	53·90	...
Gorbals's Dist. — Nither Cairn	,, ,, ,,	...	...	700	54·65	...
Paisley W. Works — Stanely	R. Sharp, Esq.	12	1 0	190	35·54	...
Paisley W. Works — Back Thornleymuir	,, ,,	12	1 0	646	46·58	...
Paisley W. Works — Muirhead	,, ,,	12	1 0	482 ⩛	48·39	...
Paisley W. Works — Springside	,, ,,	12	1 0	532 ⩛	52·97	...

DIVISION XIV.—SOUTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	RENFREW—(*con.*)						
D	Glasgow (Queen's Park)	Mr. D. McLellan	8	0 9	144 ⅄	29·96	171
	Paisley (Ferguslie House)	Mr. Maclean	3	1 0	86 ⅄	36·58	...
Shaws Water Works.	Green Water	J. Wilson, Esq., C.E.	6	1 0	788 ⅄	57·10	...
	Garvocks	,, ,, ,,	6	1 0	631 ⅄	57·40	...
	Glenbrae	,, ,, ,,	6	0 9	574 ⅄	58·50	...
	Mansfield	,, ,, ,,	5	1 0	573 ⅄	59·27	...
	Compensation Reservoir	,, ,, ,,	6	1 0	600	58·40	...
	Loch Thom	,, ,, ,,	5	1 0	643 ⅄	59·85	...
	Shielhill	,, ,, ,,	6	0 9	962 ⅄	58·60	...
	Darndaff Moor	,, ,, ,,	6	1 0	840	57·50	...
	Spango Burn	,, ,, ,,	6	0 9	757 ⅄	58·00	...
	Hole Glen	,, ,, ,,	5	1 0	603	57·23	...
	New Yetts Dam	,, ,, ,,	...	...	...	57·24	...
	Prospect Hill	,, ,, ,,	5	1 0	200	57·26	...
	Port Glasgow (Dougliehill Res.)	,, ,, ,,	5	1 3	549 ⅄	48·27	...
	,, ,, (Auchendores Res)	,, ,, ,,	5	1 3	321 ⅄	46·76	...

DIVISION XV.—WEST MIDLAND COUNTIES.

	DUMBARTON.						
	New Kilpatrick (Chesters)	J. Kennedy, Esq.	5	1 0	240 T	40·76	...
D	Dumbarton (Leven Shipyard)	Messrs. Denny, Bros.	5	1 0	21 T	47·94	208
	Helensburgh (Lyleston)	Forrest Frew, Esq.	6	0 4	120	47·10	...
	,, (Water Works)	Mr. T. Murray	6	0 3	296 ⅄	51·53	221
	Arrochar	Rev. J. Dewar	5	0 9	10	66·25	...
	STIRLING.						
	Strathblane (Mugdock Reservoir)	J. M. Gale, Esq., C.E.	8	0 6	320	48·50	...
	Falkirk (Kerse)	A. Brown, Esq.	8	1 0	...	31·30	...
D	Killearn (Old Ballikinrain)	Mr. J. Smith	5	0 6	265	52·09	201
	Stirling (Polmaise Gardens)	Mr. W. W. Ritchie	6	1 0	12	35·50	...
	Kippen	P. J. Muirhead, Esq.	5	1 6	255 T	45·33	142
	Ben Lomond	J. M. Gale, Esq, C.E.	...	...	1800	69·80	...
	BUTE.						
	Arran (Pladda)	Bd. of Northern Lights	...	3 3	55 ?	40·02	133
	Holy Island (Lamlash)	,, ,, ,,	...	...	...	41·60	..
	Rothesay (Mount Stuart)	J. Kay, Esq.	3	2 6	100 ⅄	44·50	...
D	,, (Barone Cottage)	,, ,,	5	1 0	116 ⅄	41·93	215
	ARGYLL—(MAINLAND.)						
D	Holy Loch (Rosmor)	W. R. W. Smith, Esq.	5	1 1	30	71·19	214
	Ardrishaig	A. Buchan, Esq.	...	...	...	61·59	...
	Lock Eck (Benmore)	J. Duncan, Esq.	6	1 0	35	74·24	...
D	Lochgilphead (Kilmory) *Snowdon*	Sir J. Campbell Orde, Bt.	5	...	...	56·72	206
D	,, (Poltalloch)	Mr. J. Russell	3	4 6	121	44·11	200

DIVISION XV.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
ARGYLL—(MAINLAND)—(*con.*)						
D Oban (Craigvarren)	G.W.Brenan, Esq., C.E.	5	1 0	143	48·28	219
Appin (Aird's)	R. Macfie, Esq.	5	0 11	41 ⅄	56·03	...
Ballachulish	D.Campbell, Esq., M.D.	8	0 10	20	80·24	232
D Strontian (Laudale)	A. Fletcher, Esq.	8	1 0	15 ⅄	73·54	238
D ,, (,,)	,, ,, ,,	5	1 0	15 ⅄	76·81	238
D Loch Sunart (Glenborrodale)	J. J. Dalgleish, Esq.	5	0 2	60 L	61·94	206
Ardnamurchan	Bd. of Northern Lights	...	3 6	82 ?	39·51	171
D ,, (Achateny)	Mr. R. Coltart	5	0 2	61 ⅄	69·11	246
Loch Eil (Corran)	Bd. of Northern Lights	...	0 4	14 ?	69·09	181
ARGYLL—(INSULAR.)						
Cantire, Mull of	Bd. of Northern Lights	...	...	279 ?	30·13	141
,, (Campbeltown, Devaar)	,, ,,	...	3 4	75 ?	36·47	150
,, (Skipness Castle)	Mr. P. Maclean	6	1 6	20 L	51·40	...
D ,, (Stonefield, Tarbert)	Colin G. Campbell, Esq	3	1 3	90	65·74	168
D Islay (Ardbeg)	C. Hay, Esq.	5	4 0	10	48·33	234
,, (Rhinns)	Bd. of Northern Lights	...	3 0	74 ?	40·11	186
,, (Lochindaul)	,, ,,	...	...	...	48·17	169
,, (McArthurshead)	,, ,,	...	...	...	58·19	164
D ,, (Eallabus)	J. S. R. Ballingall, Esq.	5	1 0	68 T	49·01	177
D* ,, (Gruinart School House)	Mr. D. Mac Gilp	5	1 0	214 ⅄	45·87	211
,, (Rhuvaal)	Bd. of Northern Lights	...	...	...	49·14	158
Jura (Bay of Small Isles)	H. Evans, Esq.	...	...	...	63·40	...
,, (Lowlandmansbay)	Bd. of Northern Lights	...	...	...	51·46	165
,, (Fladda)	,, ,,	...	...	...	57·20	139
Lismore (Mousedale)	,, ,,	...	3 4	37 ?	41·52	183
Mull (Earraid)	,, ,,	...	...	...	?21·28	...
D ,, (Quinish)	J. N. Forsyth, Esq.	5	0 9	35	54·12	229
,, Sound of	Bd. of Northern Lights	3	0 11	12	37·20	142
Tyree (Hynish)	,, ,,	...	...	...	45·73	169
Coll (Acha School)	Mr. R. Macgregor	5	1 0	100 T	46·64	216
D ,, (The Manse)	Rev. N. MacDougall	5	1 6	100 T	40·64	200

DIVISION XVI.—EAST MIDLAND COUNTIES.

CLACKMANNAN.						
D Tillicoultry	J. Wilson, Esq.	5	0 6	65 T	42·80	175
,, (Tillicoultry House)	Col. A. Mitchell	5	0 1	...	45·09	...
,, (,, ,,)	,, ,, ,,	5	1 1	...	42·83	...
D Dollar	Mr. A. Blackwood	9	1 0	178	37·68	190
,, (Blairhill)	A. Buchan, Esq.	...	...	...	37·52	...
KINROSS.						
Loch Leven Sluice	Mr. W. Clark	7	0 7	360 L	36·20	...
D Kinross (Turfhills)	G. Henderson, Esq.	5	0 6	400 ⅄	43·64	198

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain 1886	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
FIFE.						
D Dunfermline (Keavil)	L. Dalgleish, Esq.	5	0 2	150	27·67	174
D ,, (Outh)	,, ,,	5	0 2	890	34·78	180
Isle of May	Bd. of Northern Lights	...	..	...	?18·88	...
Pittenweem (The Priory)	Rev. F. K. Lloyd	5	0 10	50	25·12	...
Kilconquhar (Balcarres)	Mr. E. Tate	5	1 0	300 T	37·57	200
D Strathmiglo (Loden Urquhart)	J. Thom, Esq.	5	1 0	615 T	33·45	183
St. Andrews	A. Buchan, Esq.	...	...	...	28·43	...
,, (The Priory)	Major Jackson	...	...	...	23·40	...
D ,, (Pilmour Cottage)	Mr. R. Younger	...	...	...	28·20	177
Kilmany (Mountquhanie House)	D. Gillespie, Esq.	3	1 3	240	24·40	...
Cupar (Birkhill)	A. Buchan, Esq.	5	0 5	130	26·96	...
PERTH.						
D Culross (West Grange)	J. J. Dalgleish, Esq.	5	0 2	116 ⅄	35·74	179
Menteith (Cardross)	H. D. Erskine, Esq.	...	1 6	...	47·10	..
Aberfoyle	J. M. Gale, Esq., C.E.	8	0 6	60	48·60	...
Dunblane (Kippendavie)	P. Stirling, Esq	3	...	362 T	35·30	...
,, (Kippenross)	,, ,, ,,	3	0 4	150 ⅄	32·00	...
Loch Dhu	J. M. Gale, Esq., C.E.	8	0 6	325	71·80	...
Ledard	,, ,, ,,	...	...	1500	59·90	...
Loch Drunkie	,, ,, ,,	8	0 6	420	58·70	...
,, Vennachar	,, ,, ,,	8	0 6	275	54·50	...
D Lanrick Castle	Mr. J. Begg	3	1 0	...	45·25	159
Bridge of Turk	J. M. Gale, Esq., C.E.	8	0 6	275	64·70	...
Loch Katrine (Tunnel Hill Top)	,, ,, ,,	8	0 6	830	53·80	...
Between Glen Finlas & Ben Ledi	,, ,, ,,	8	0 6	1800	47·60	...
Callander (Leny)	J. B. Hamilton, Esq.	3	0 4	340 T	59·80	...
Glen Gyle	J. M. Gale, Esq., C.E.	...	...	380	81·10	...
D Auchterarder (Colquhalzie)	Mr. R. Morton	8	0 5	150	39·10	...
D Balquhidder (Stronvar)	J. Dickson, Esq.	5	1 0	422 T	72·84	234
Crieff (Ochtertyre)	A. Buchan, Esq.	3	0 9	333	39·07	...
Perth (Rosebank)	,, ,, ,,	...	...	140	31·96	...
,, (Huntingtower Field)	Mr. A. Bayne	6	0 9	40	29·00	...
D Coupar Angus Station	Mr. J. Robertson	5	1 3	183 T	29·00	181
D Dunkeld (Inver Braan)	Rev. J. M. B. Murdoch	...	1 0	500 ?	36·37	152
D ,, Station (H.R.S.)	The Station Agent	5	1 0	212 T	38·35	138
Meigle (Arthurstone House)	P. Carmichael, Esq.	5	2 3	187 ⅄	28·54	...
,, (,, Garden)	,, ,, ,,	5	2 3	196 ⅄	28·71	...
D Dalnaspidal (H.R.S.)	The Station Agent	5	1 6	1414 T	54·35	255
FORFAR.						
D Broughty Ferry (Douglas Ho.)	Mr. K. Graham	5	5 6	60 ⅄	26·66	175
D Dundee (Eastern Necropolis)	W. B. McKelvie, Esq.	3	0 4	199 T	27·55	145
,, (,, ,,) *new*	,, ,, ,,	...	...	...	27·74	...
D†Craigton	J. Watson, Esq., C.E.	8	1 0	481	41·84	172
† ,, M	,, ,, ,,	11	0 3	481	39·51	...
†Crombie Reservoir M	,, ,, ,,	11	0 3	522 T	39·49	...
†Hill Head M	,, ,, ,,	11	0 3	570 T	37·97	...

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	FORFAR—(*con.*)						
D	Arbroath	A. Brown, Esq., LL.D.	8	2 0	60 T	26·98	152
	Kirriemuir (Lednethaie)	Mr. W. Morrison	...	...	720	36·87	...
D	,, (Lintrathen)	J. Watson, Esq., C.E.	8	1 0	700	33·04	169
	,, (,,) ....M	,, ,, ,,	8	1 0	700	34·90	...
	,, (,, Creich Hill)	,, ,, ,,	8	1 0	1500	36·40	...
	Montroseness	Bd. of Northern Lights	...	...	...	19·94	...
	Montrose (Sunnyside Asylum)	A. Buchan, Esq.	5	0 5	200	28·51	...

DIVISION XVII.—NORTH EASTERN COUNTIES.

	KINCARDINE.						
	The Burn [Brechin]	Col. McInroy	4	0 6	250	32·70	...
	Fettercairn	A. C. Cameron, Esq.	5	0 4	230 ⊼	33·68	186
	Girdleness	Bd. of Northern Lights	...	4 7	86	?15·30	...
	ABERDEEN.						
D†	Braemar	J. Aitken, Esq.	8	0 9	1114 T	33·01	207
	Aboyne Castle	Mr. G. H. Smythe	5	1 3	453 T	25·91	183
	Drumoak (Drum Castle)....M	Mr. R. Ewen	5	1 6	275 ⊼	21·25	...
D	Cromar (Logie Coldstone Manse)	Rev. Dr. Davidson	5	1 0	694 ⊼	28·32	209
	,, (,, ,, Loanhead)	Mr. A. Farquharson	5	1 0	743 ⊼	27·43	219
	,, (Tillypronie)	Mr. R. Littlejohn	5	1 0	1120 ⊼	31·73	204
D	Aberdeen (Merlebank)	J. Duncan, Esq.	5	0 6	76 ⊼	27·29	219
†	,, (Rose Street)	Dr. A. Cruickshank	5	0 5	95 T	27·73	...
D	,, (Braemar Place)	Mr. J. McCormack	8	1 9	103	27·04	213
	,, (King's College)	The Meteor. Council	...	...	...	27·83	224
	,, (Gordon's Hospital)	A. Buchan, Esq.	8	1 6	66 T	28·48	...
D	Midmar (Blackstock)	Mr. J. Barron	5	0 8	570 T	25·57	153
D	,, (Dun Echt Observatory)	Rt. Hon. Earl Crawford	8	0 11	461 ⊼	24·33	173
	Inverury (Manar Farm)	Mr. J. Walker	8	15 0	270 ?	23·50	...
	,, Manse	Rev. J. Davidson, D.D.	9	0 0	220	?28·62	...
	Ellon (Kermuck)	Mr. T. Mair	11	0 6	300 T	28·49	...
	Peterhead (Buchanness)	Bd. of Northern Lights	...	...	...	15·83	...
D	New Deer (Artamford Cottage)	J. Joiner, Esq.	5	1 0	551 ⊼	30·34	239
D	Old Deer	J. Walker, Esq.	5	2 0	135 ⊼	27·11	234
	Kinnairdhead	Bd. of Northern Lights.	...	...	...	18·67	.
	BANFF.						
D	Keith (H.R.S.)	The Station Agent	5	1 0	364 T	27·73	191
	Banff (St. Leonard's)	A. Ramsay, Esq.	5	1 0	115 T	23·74	194
D	Boyndie (Whitehills)	Rev. W. Anderson	5	1 0	65 ⊼	24·43	206
	Cullen House	Mr. G. Berry	5	0 11	100 T	28·95	...
	ELGIN OR MORAY.						
	Grantown	Mr. W. Duncan	5	1 1	712 ⊼	28·61	204
	Craigellachie (Wester Elchies Sch)	Mr. J. Milne	8	1 0	560 T	29·58	143
D	,, (,, ,, Garden)	Mr. W. Jamieson	5	1 0	530 T	30·15	136

DIVISION XVII.—NORTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell
			ft. in.	feet.	inches.	
ELGIN OR MORAY—(*con.*)						
D Forres (H.R.S.)	The Station Agent	5	1 0	25	21·72	183
Gordon Castle	Mr. Webster	8	1 0	104 T	26·86	...
D Elgin (Highfield)	A. Cameron, Esq.	5	0 11	80 T	25·63	195
NAIRN.						
D Nairn (Acharéidh)	Miss Clarke	8	1 0	60 T	21·13	178
,, (School Ho.)	The Meteor. Council	8	1 9	84	22·29	210

DIVISION XVIII.—NORTH WESTERN COUNTIES.

WEST ROSS.‡						
D Strome Ferry (H.R.S.)	The Station Agent	5	1 0	40 T	62·07	244
Applecross Gardens	Mr. D. McCowan	5	0 9	70 T	51·77	...
Strathconan [Beauly]	Mr. D. McIver	5	1 0	450	47·63	186
Glencarron	A. Buchan, Esq.	...	...	504	74·11	...
Loch Vraon	J. D. Baldry, Esq., C.E.	8	0 7	750	58·08	...
Lochbroom (Loch Drome)	,, ,, ,,	8	0 7	850	62·22	...
Braemore House	,, ,, ,,	8	0 7	750	61·49	...
,, Lodge	,, ,, ,,	8	0 7	100	55·36	...
D Lochbroom	Mr. M. Macleay	5	0 6	48	49·26	228
Isle of Lewis (Stornoway)	Bd. of Northern Lights	...	3 4	31 ?	30·78	175
,, (,,)	The Meteor. Council	8	1 0	24	48·22	271
,, (Butt of Lewis)	Bd. of Northern Lights	...	3 6	...	40·19	154
EAST ROSS.‡						
Achonachie Lodge [Beauly]	W. C. Preston, Esq.	5	1 0	125 B	29·89	247
Cromarty	Bd. of Northern Lights	...	3 4	28 ?	?14·13	...
D Alness (Ardross Castle)	Mr. R. Massie	5	1 0	450 T	32·00	231
Fearn (Arboll)	Miss Hope-Douglas	5	1 2	65	18·97	...
D ,, (Lower Pitkerrie)	R. Gordon, Esq., C.E.	5	1 0	95	18·39	134
D Edderton	W. E. Cattley, Esq.	5	3 0	120 B	22·82	216
Tarbetness	Bd. of Northern Lights	...	3 4	61 ?	27·75	...
D Tain (Springfield)	Mr. E. McLardy	5	3 5	83	20·47	148
WEST INVERNESS.						
Ben Nevis Observatory	A. Buchan, Esq.	...	...	...	107·84	...
D Fort William (Public School)	C. Livingstone, Esq.	5	1 0	36 T	71·79	249
Moidart (Roshven)	Prof. Blackburn	5	1 0	68 T	65·29	257
,, (Kinloch Moidart)	A. Buchan, Esq.	...	...	...	60 67	...
D Loch Shiel (Glenaladale)	Major Macdonald	5	1 2	50 ?	94·94	260
Borrodale (Arisaig)	Mr. A. Grant	5	1 0	20	58 01	244
Glenquoich	A. Buchan, Esq.	8	2 0	660	94 37	...
Isle of Skye (Armadale Castle)	Mr. Bruce	5	...	...	63·65	...
,, (Oronsay)	Bd. of Northern Lights	...	0 6	15 ?	53·38	189
,, (Broadford)	Mr. D. Logan	5	1 0	60	110·33	217

‡ Including Cromarty.

DIVISION XVIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground. ft.	in.	Height above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
WEST INVERNESS—(*con.*)							
Isle of Skye (Kyle Akin)	Bd. of Northern Lights	...	0	2	3 ?	62·69	155
Rona	,, ,, ,,	...	.	.	...	26·43	137
Barra (Barrahead)	,, ,, ,,	...	3	0	640 ?	25·56	152
D S. Uist (Ardkenneth)	Rev. D. MacColl	5	1	0	10	39·97	222
,, (Ushenish)	Bd. of Northern Lights	...	0	4	157 ?	64·40	169
D N. Uist (Loch Maddy)	Mr. G. McKay	5	1	0	...	46·86	158
Harris (Island Glass)	Bd. of Northern Lights	...	3	4	50 ?	39·48	160
EAST INVERNESS.							
Invergarry	Mrs. Ellice	5	1	0	...	58·20	...
D Kingussie (H.R.S.)	The Station Agent	5	1	0	750 T	28·24	230
D Fort Augustus (St. Benedicts)	Rev. W. M. Wall	5	1	6	68 ⅄	36·90	191
D Aviemore (H.R.S.)	The Station Agent	5	1	0	710	29·22	247
Loch Ness (Drumnadrochit)	Mr. A. Grant	5	1	0	104	30·26	221
Glen Strathfarrar	Mr. D. Fraser	5	1	0	461	54·49	...
D Inverness (H.R.S.)	The Station Agent	5	1	8	...	22·08	143
† ,, (Culloden House)	D. Forbes, Esq.	6	4	0	104 T	20·94	...
D Cawdor [Nairn]	J. Joss, Esq.	5	1	0	260	25·05	207

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND.							
Invershin	Mr. G. Young	5	4	0	20 T	28·14	...
D Golspie (H.R.S.)	The Station Agent	5	0	9	27	30·44	133
D ,, (Dunrobin Castle)	Mr. D. Melville	5	1	0	14 ⅄	26·97	153
,, (,, ,,) M	,, ,,	3	0	3	13 ⅄	27·46	...
Lairg	A. Buchan, Esq.	3	3	4	458	31·54	...
Assynt (Achumore)	J. Elliot, Esq.	3	0	9	200 T	69·10	...
Stourhead	Bd. of Northern Lights	...	..		...	37·60	156
Scourie	J. Simpson, Esq.	5	0	5	28	40·28	...
D Forsinard (H.R.S.)	The Station Agent	5	1	0	...	30·55	265
Cape Wrath	Bd. of Northern Lights	3	3	6	355 ?	45·02	145
CAITHNESS.							
Wick	The Meteor. Council	8	1	9	77	28·34	232
† ,, (H.R.S.)	The Station Agent	5	1	0	.	2 ·54	...
† ,, (Nosshead)	Bd. of Northern Lights	8	4	8	127 ?	21·96	158
D† Watten (H.R.S.)	The Station Agent	5	0	9	75 T	25 81	216
Thurso (Holburnhead)	Bd. of Northern Lights	3	0	8	60 ?	24·00	...
Dunnethead	,, ,, ,,	...	3	0	...	30·09	162
Pentland Skerries	,, ,, ,,	...	3	3	72 ?	25·88	164
ORKNEY.							
D South Ronaldshay (Roeberry)	J. Gray, Esq.	5	1	2	101 ⅄	29·23	235
Hoy (Cantickhead)	Bd. of Northern Lights	...	0	6	...	37·20	...
,, (Graemsay Sound, East=High)	,, ,, ,,	...	3	4	27 ?	30·83	163
,, (,, ,, West=Low)	,, ,, ,,	...	3	4	...	31·37	223

DIVISION XIX.—NORTHERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground		Rain Gauge. Height Above Sea Level	Depth of Rain. 1886	Days on which ·01 or more fell.
				ft.	in.	feet.	inches.	
	ORKNEY—(*con.*)							
	Pomona (Swanbister)	W Irvine Fortescue, Esq.	8	1	0	69	32·27	259
D	,, (Kirkwall)	Mr. J. W. Cursiter	3	0	6	30	32·74	252
	Shapinsay (Balfour Castle)	Col. Balfour	4	0	6	50	29·10	...
	Sanda (Start Point)	Bd. of Northern Lights	11	0	6	29 ?	24·00	...
	North Ronaldshay	,, ,, ,,	...	3	4	21 ?	29·84	...
	SHETLAND.							
	Sumburghead	Bd. of Northern Lights	...	...		...	26·70	...
	,, (Dunroseness)	The Meteor. Council	8	1	0	84	35·84	272
	Bressay Lighthouse	Bd. of Northern Lights	5	0	4	60	40·70	168
D	Lerwick (Montfield)	J. M. Goudie, Esq.	5	1	0	60 ?	42·24	252

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
CORK.						
D Dunmanway (Coolkelure)	Col. Shuldham	5	1 6	500 T	81·21	252
Roche's Point	The Meteor. Council	8	1 9	32	50·94	222
D Carrigaline (Ravenswood)	M. H. Westrop, Esq.	5	1 0	130 L	46·66	203
D Cork (Blackrock)	J. B. Binyon, Esq.	8	6 0	35 T	45·63	211
D ,, (Sunday's Well Road)	W. Miller, Esq.	5	1 0	115 B	40·51	225
,, (,, ,, ,,)...M	,, ,, ,,	3	1 0	115 B	41·36	...
Glenville	H. Hudson, Esq., M.D.	8	2 0	514 ⅄	50·19	225
Ballyhooly (Wood Cottage)	R. H. Wake, Esq., M.D.	5	1 3	195 ⅄	46·56	...
KERRY.						
Kenmare (Derreen)	Mr. W. Holbrow	5	1 0	74 T	72·74	201
D Dromore Castle	R. J. Mahony, Esq.	5	0 6	50 L	62·36	201
Valencia (Telegraph Station)	The Meteor. Council	8	1 0	12	61·46	272
,, (Observatory)	,, ,, ,,	...	2 0	11	62·83	265
D Killarney (Woodlawn)	Ven Archdeacon Wynne	5	1 1	91 T	61·79	238
,, (Gap of Dunloe)...M	,, ,, ,,	8	3 0	75	101·20	...
Dingle	Rev. J. B. Anderson	5	1 0	10 L	61·66	...
D Tralee (Castlemorris)	Late W. H. Deane, Esq.	5	1 0	25 L	48·25	234
WATERFORD.						
Knockaderry	M. J. Fleming, Esq.	5	0 8	230 T	45·56	213
D Waterford (Brook Lodge)	C. P. Bolton, Esq., C.E.	5	1 0	100 T	42·88	198
,, (Ticor)	M. J. Fleming, Esq.	5	0 8	171 T	42·00	192
,, (Newtown)	T. N. Harvey, Esq.	11	12 9	77	39·90	...
D Portlaw (Mayfield)	J. Anderson, Esq.	5	4 0	70	47·67	218
D Glenam [Clonmel]	Miss Grubb	8	1 4	80 T	47·31	225
TIPPERARY.						
D Tipperary (Henry Street)	J. Dowling, Esq., M.D.	5	1 0	400 ?	42·72	196
D Derrycastle [Killaloe]	Mr. T. Manly	5	1 6	580 T	54·61	243
D Nenagh (The Lodge)	Heber Koe, Esq.	5	1 0	100	35·48	210
D ,, (Clashnevin)	J. Mounsey, Esq.	5	1 2	300 ⅄	37·90	225
D ,, (Castle Lough)	A. Parker, Esq.	5	1 3	120 T	46·66	227
D Ballingarry (Hazelfort)	Mrs. Fraser	5	1 0	...	33·96	208
LIMERICK.						
D Newcastle West	Mr. J. D. Musgrave	5	3 0	219 T	40·36	168
Jane Ville [Tipperary]	R. Harding, Esq.	5	1 0	534	48·93	...
D Limerick (Kilcornan)	Mr. G. Smyth	5	1 0	...	34·87	195

DIVISION XX.—MUNSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1886 inches.	Days on which ·01 or more fell.
CLARE.							
O'Briensbridge (Ross)	J. Digan, Esq.	10	2	0	93	42·14	221
D Sixmilebridge (Kilkishen)	Rev. Canon Lloyd	5	4	4	113 T	40·16	227
D Broadford (Hurdlestown)	Capt Bentley	5	1	0	164	44·71	254
D Ennis	J. Hill, Esq., C.E.	10	3	2	21 L	45·53	205
D Miltown Malbay	M. Molohan, Esq.	5	1	0	400 T	46·73	244
DIVISION XXI.—LEINSTER.							
WEXFORD.							
D New Ross (Longraigue)	J. W. Deane, Esq.	5	1	0	210 T	44·65	210
D Enniscorthy (Ballyhyland)	J. Moffat, Esq.	5	1	0	365 T	47·30	228
Oulart (Wells)	C. M. Doyne, Esq.	5	0	7	...	45·65	200
Gorey (Courtown House)	Rt Hon Earl of Courtown	5	3	0	80 T	41·86	209
KILKENNY.							
D Rosbercon Castle [New Ross]	A. E. Graves, Esq.	10	2	6	60	37·56	138
D Inistioge (Woodstock)	Lady Louisa Tighe	5	4	6	400 T	46·07	206
Graigue (Brandondale)	Mrs. Burtchaell	5	2	0	90 T	43·39	...
Lavistown	D. A. Milward, Esq.	5	2	0	180 T	35·69	190
Kilkenny Castle	The Meteor. Council	8	...		...	36·87	187
WICKLOW.							
D Enniskerry (Parknasilloge)	E. E. Barrington, Esq.	10	4	0	400	51·66	207
D† Bray (Fassaroe)	R. M. Barrington, Esq.	10	5	0	250	49·20	210
CARLOW.							
D Carlow (Browne's Hill)	R. C. Browne, Jun., Esq.	5	1	0	291 T	36·30	217
QUEEN'S COUNTY.							
Abbey Leix (Blandsfort)	J. L. Bland, Esq.	8	4	3	532 T	37·71	212
KING'S COUNTY.							
D Parsonstown (Birr Castle)	Rt Hon Earl of Rosse FRS	8	0	11	183	35·68	209
,, (,, ,,)	The Meteor. Council	8	0	7	...	34·99	216
KILDARE.							
D Straffan House	Mr. F. Bedford	5	2	0	240	38·18	214
DUBLIN.							
D Glenesmoel Lodge	F. P. Dixon, Esq., C.E.	5	1	6	800 T	64·51	236
D ,, (Rathmines W.W.)	,, ,, ,,	5	1	6	581 T	50·29	218
D ,, (Friarstown House)	,, ,, ,,	5	1	6	607 T	48·85	222
Killiney (Cloneevin)	R. O'B. Furlong, Esq.	5	1	0	250 T	32 42	195
D Dalkey (Bellevue Park)	H. M. Anketell Jones Esq	6	1	3	293	29·20	173
D† Dublin (Fitz William Square)	J. W. Moore, Esq., M.D.	5	3	4	54 T	32·97	220
,, (Upper Leeson Street)	G. D. Powell, Esq., M.D.	5	0	6	49 T	35·09	200
D ,, (Phœnix Park)	Col. Coddington, R.E.	8	1	0	162 T	31·40	257
D Glasnevin (Botanic Gardens)	F. W. Moore, Esq.	8	0	11	62 T	29·92	177
D Balbriggan (Laragh)	Rev. S. P. Warren	5	1	0	57 T	35·24	212

DIVISION XXI.—LEINSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	MEATH.						
D	Clonee (Williamstown)	W. Johnston, Esq.	5	0 10	200	33·45	211
D	Trim	P. Malone, Esq., C.E.	10	4 2	180 T	38·18	182
D	Navan (Balrath)	R. W. Walsh, Esq., C.E.	5	2 0	160	37·30	143
	Moynalty (Westland)	W. A. Barnes, Esq.	5	1 4	265	41·23	221
	WESTMEATH.						
D	Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0	367 T	36·95	146
D	Athlone (Twyford)	J. Hodson, Esq.	5	5 0	188 ⅄	40·40	236
	LOUTH.						
D	Ardee (Lissrenney)	T. F. Filgate, Esq.	8	0 10	75 T	39·26	229
	Louth (Stephenstown)	Col. Fortescue	5	0 11	75 ⅄	37·21	215
	Dundalk (Farndreg)	J. Barton, Esq.	5	1 0	90 T	?28·70	...
	Ravensdale Park	Rt. Hon. Lord Clermont	8	1 0	360 T	49·21	213
D	Greenore	T. Chambers, Esq.	5	1 0	4 L	35·19	212
	LONGFORD.						
	Edgworthstown (Currygrane Ho)	J. M. Wilson, Esq.	5	1 0	265 T	41·25	182

DIVISION XXII.—CONNAUGHT.

	GALWAY.						
D	Shannon Grove [Banagher]	F. A. Waller, Esq.	5	...	...	28·74	178
D	Galway (Queen's College)	Prof. Anderson	5	1 0	22	43·92	217
D	Ballinasloe	W. H. Kempster, Esq.	5	0 6	150 ⅄	39·99	232
D	,, (Garbally)	Mr. J. Cobban	8	1 0	157 ⅄	43·93	227
D	Ahascragh (Clonbrock)	Rt. Hon. Lord Clonbrock	10	5 6	200 T	45·92	158
D	Clifden (Kylemore)	Mr. T. McNab	5	1 0	105	79·63	239
	Tuam (Gardenfield) M	H. Kirwan, Esq.	5	1 0	155 T	50·60	...
	,, (,,) ... *Snowdon*	,, ,, ,,	5	6 0	160 T	48·94	...
	MAYO.						
	Ballinrobe (Cranmore)	Miss Knox	5	...	...	57·16	...
	,, (Kilrush)	J. Simson, Esq.	5	1 0	120 T	49·50	...
	Westport (Oldhead House)	H. Wilbraham, Esq.	3	1 7	100 T	52 20	...
D	Crossmolina (Enniscoe)	J. Pratt, Esq.	5	0 11	74 T	57·40	243
	Belmullet	The Meteor. Council	8	...	...	51·75	273
	SLIGO.						
D	Collooney (Markree Observatory)	A. Marth, Esq.	5	1 0	130 ⅄	45·94	255
	,, (,, ,,)	,, ,, ,,	5	16 6	148 ⅄	40·23	248
	,, (,, ,,)	,, ,, ,,	38	16 6	148 ⅄	43·01	262
D	Sligo (Mount Shannon)	F. M. Olpherts, Esq.	5	4 5	70 B	42·96	222
	Mullaghmore	The Meteor. Council	8	1 2	40	42·77	233

DIVISION XXII.—CONNAUGHT—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground		Height Above SeaLevel	Depth of Rain. 1886	Days on which .01 or more fell.
			ft.	in.	feet.	inches.	
LEITRIM.							
D Carrick-on-Shannon	R. Bradshaw, Esq., M.D.	5	1	0	150 ?	38·74	219
D Ballinamore (Lawderdale)	J. O. Lawder, Esq.	5	1	0	275 T	44·89	237

DIVISION XXIII.—ULSTER.

CAVAN.							
D Belturbet (Red Hills)	Rev. E. B. W. Venables	5	0	9	208 ⅄	39·96	186
FERMANAGH.							
Enniskillen (Florence Court)	The Earl of Enniskillen	8	1	9	250 T	48·48	219
Brookboro' (Colebrook Park)	The Meteor. Council		1	0	240	45·08	176
MONAGHAN.							
D Rockcorry	Mr. W. R. Loudon	5	1	0	290 ⅄	39·23	201
ARMAGH.							
Flurrybridge	Rt. Hon. Lord Clermont	8	1	0	340 ⅄	43·18	197
D Edward St. Station [Newry]	J. L. D. Meares, Esq.	5	1	0	22 ⅄	39·65	152
D Armagh Observatory	Dr. Dreyer	8	1	0	205 ⅄	35·82	232
D Lurgan (Belle Vue)	F. W. Bell, Esq.	5	0	6	200 T	35·74	228
DOWN.							
D Kilkeel	Rev. E. O'Brien Pratt	5	1	6	40	36·92	199
D Warrenpoint (Summer Hill)	Mr. B. M. Kernan	5	1	0	30 L	41·87	149
Newcastle (Fairleigh)	Rev. J. H. Seymour	5	1	2	12	57·06	232
D Rathfryland (Ballynagappoge)	J. Smyth, jun. Esq., C.E.	5	3	0	300	37·45	152
Castlewellan (Lough Island)	,, ,, ,,	10	3	0	442 T	42·30	...
Banbridge (Katesbridge)	A. Mulligan, Esq.	5	1	0	230	32·77	215
D Seaforde	Col. Forde	8	0	5	180 ⅄	46·42	238
D Banbridge (Corbet Reservoir)	J. Smyth, jun., Esq. C.E.	10	3	0	234 T	35·50	...
D† ,, (Milltown)	,, ,, ,,	8	0	8	200 T	36·15	241
D† Waringstown	Col. Waring, M.P.	8	0	8	191 ⅄	40·23	210
Newtownards	Mr. W. Craig	5	1	7	10	33 29	150
D Sydenham (Alma House)	R. Reade, Esq.	5	1	0	60	47·20	218
Holywood Waterworks	L. L. Macassey, Esq., CE	5	1	4	310 ⅄	39·77	...
Donaghadee	The Meteor. Council	8	1	6	30	34·89	222
ANTRIM.							
D Aghalee [Lurgan]	Lancelot Turtle, Esq.	5	1	0	105 ⅄	34·61	219
Stonyford (Belfast W. W.)	L. L. Macassey, Esq., CE	5	1	4	460 ⅄	44 58	...
D† Belfast (Queen's College)	Mr. W. Taylor	11	7	4	68 ⅄	36·88	196
D ,, (New Barnsley)	J. Firth, Esq.	5	1	0	200 T	47·79	233
D† ,, (Antrim Road)	G. Thompson, Eq.	7	7	0	144 T	35·76	214
,, (Divis Mountain) ...*side*	L. M. Ewart, Esq.	8	1	0	1350 B	39·00	...
,, (,, ,,) ...*top*	,, ,, ,,	8	1	0	1567 T	?28·00	...
,, (Glenbank)	,, ,, ,,	5	1	6	360 B	39·00	...
†Antrim (The Manse)	Rev. Dr. Orr	5	1	0	150 ⅄	32·61	160

DIVISION XXIII.—ULSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1886	Days on which 01 or more fell.
				ft. in.	feet.	inches.	
	ANTRIM—(*con.*)						
	Carrickfergus (North Woodburn)	G. E Reilly, Esq.	5	1 0	735 T	48·51	273
	Ballymena (Harryville)	A. Dawson, Esq.	5	1 0	150 T	40·84	258
D	Broughshane (Quolie)	J. Lanyon, Esq.	...	1 0	...	34·97	244
D	Cushendall (Cushendun)	Rev. St. A. Brenan	5	1 0	25 T	41·17	257
	Bushmills (Dundarave)	SirF.E.Macnaghten,Bt	5	1 3	162 T	36·23	242
	LONDONDERRY.						
D	Garvagh (Moneydig)	Miss Morrison	5	1 0	121	40·25	226
D	Londonderry (Knockan)	Rev. H. F. Stevenson	5	1 0	300	46·44	232
D	,, (Creggan Res.)	Mr. J. Hutchinson	8	1 0	320 T	44·21	250
D	Limavady	C. D. H. Campbell, Esq.	5	4 0	81 T	36·70	257
	,, (Drenagh)	C. T. McCausland, Esq	5	1 0	80	38·47	238
	Bellarena	Sir F. W. Heygate, Bt.	12	1 0	12 T	42·56	228
	Coleraine	A. D. Williamson, Esq.	5	1 4	25 T	40·38	203
D	,,	C. D. H. Campbell, Esq.	5	1 0	166 T	38·16	276
D	,,	J. Kennedy, Esq.	5	4 0	52 T	39·53	205
	TYRONE.						
	Auchnacloy	Rev. T. G. Stokes	5	4 6	255	39·68	...
	Moy (Derrygally)	W. McG. Bond, Esq.	10	6 0	60 ?	37·96	168
D	Stewartstown (The Square)	A. Johnston, Esq.	5	1 4	300 T	36·49	215
D	Dungannon (Rockdale)	Col. Lowry	5	1 0	300 T	40·21	223
	,, (,,)M	,, ,,	5	1 0	260 T	42·50	...
D	Stewartstown (Ardtrea Rectory)	Ven. Archd. Meade	5	1 0	191 T	37·58	216
D	Omagh (Edenfel)	Col. Buchanan	8	1 0	280 T	38·03	234
	DONEGAL.						
	Castlefinn (Finn Lodge)	Sir F. W. Heygate, Bt.	5	1 0	12	38·85	199
	Raphoe (Convoy Ho.)	Col. Montgomery	5	1 0	110 T	48·36	246
D	Ramelton (Killygarvan)	C. H. Cochrane, Esq	5	0 10	11 L	48·78	246
	Bloody Foreland (Tullaghobegly)	Rev. W. S. Griffith	5	1 1	24 T	41 54	...
D	Buncrana (Rockfort)	T. Colquhoun, Esq.	5	1 0	40	43·97	240
D	Moville	Mr. J. Lowry	8	1 6	78 L	40·87	236
D	,, Rectory	Rev. S. R. Craig	5	1 0	110 B	46·67	266
	Malin Head	The Meteor. Council	8	...	...	34·91	253

G. J. S.

RULES FOR OBSERVERS.

As it scarcely seems wise to add yearly to the weight and bulk of this volume by re-printing the rules, I think that it will be equally effectual if I state that a copy of *Arrangements for the Systematic Observation of Rainfall* will be sent gratis and post free to any address, on a line being addressed to G. J. Symons, F.R.S., 62, Camden Square, N.W.